

# **Chemical Engineers**

## CHETHAN K. ACHARYA

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### CAREER OBJECTIVES

To obtain a challenging position in a Chemical company utilizing my Research and Process Control skills supplemented by Fuel Processing and Industrial experience.

### EDUCATION

Master of Science in Chemical Engineering, May 2003  
The University of Alabama, Tuscaloosa, Alabama, USA

- GPA: 3.8
- Courses: Chemical Reaction Engineering, Advanced Thermodynamics, Computation in Chemical Engineering, Advanced Transport Phenomena, Advanced Statistics, Electron Microscopy, XPS, Current Trends in Analytical Chemistry.

Bachelor of Science in Chemical Engineering, May 1999  
The University of Madras, India

- GPA: 3.85
- Core Courses: Chemical Reaction Engineering, Fluid Mechanics, Chemical Engineering Thermodynamics, Transport Phenomena, Heat and Mass Transfer Operations, Catalysis Technology and Process Control.

### RESEARCH EXPERIENCE

Graduate Research Assistant (January 2001-Present)  
Department of Chemical Engineering, The University of Alabama  
(Sponsored by Argonne National Laboratory)

- Design and build a laboratory scale Steam Reforming reactor for hydrogen ( $H_2$ ) production for fuel cells. Gas Chromatography and Mass Spectrometer are used to analyze product gases.
- Perform Activity tests and Differential reactions on different catalysts supplied by Argonne National Lab. Optimize  $H_2$  production from isobutane on platinum-ceria-gadolinia catalyst. Calculate Activation energy of catalysts of different gadolinia composition. Develop a Kinetic model for steam reforming of isobutane on platinum-ceria-gadolinia catalyst.
- Assist in building a laboratory scale autothermal reforming reactor. Monitor Autothermal Reforming reaction of synthetic diesel to produce hydrogen for fuel cell applications.
- Characterize catalysts using techniques like TPR (Temperature Programmed Reduction), TPD (Temperature Programmed Desorption), TPO (Temperature Programmed Oxidation), B.E.T (Brunauer, Emmett and Teller) and XPS (X-ray Photoelectron Spectroscopy). Estimate platinum dispersion on ceria and alumina supports by Propylene Hydrogenation and Chemisorption. Prepare platinum-alumina catalyst by Impregnation method.
- Involve in catalytic  $H_2$  production from water.

Graduate Teaching Assistant (August-December 2001)  
Undergraduate Chemical Reaction Engineering Course, The University of Alabama.

### **INDUSTRIAL EXPERIENCE**

Process Engineer (August 1999-December 2000)

TamilNadu Petroproducts Limited, Madras, India

- Process Engineer in Epichlorohydrin plant. Involved in production of epichlorohydrin from allyl chloride and chlorine.
- Operated distillation columns employing different principles like Steam distillation, Azeotropic distillation and Vacuum distillation. Also conversant with operation of Heat Exchangers, Reactors, Pumps, Compressors, etc.
- In-charge of Utilities like Boiler House, Incinerator, Effluent Treatment Plant and Lime Slaking Unit.
- Involved in many startup and shutdown activities.
- Conversant with operation of Distributed Control System (DCS).
- Received extensive training on Plant Safety.

Industrial training (Summer 1998)

Henkel SPIC India Limited, India

Acquired acquaintance with various unit operations involved in the manufacture of soaps and detergents.

### **ACADEMIC PROJECTS**

- "TEM Analysis of Unmodified and Modified Al-Si Alloy", 2002 spring semester report for "Electron Microscopy" graduate course, The University of Alabama.
- "Estimation of Noble Metal Dispersion on Alumina and Ceria Supports by Chemisorption", 2002 fall semester report for "Current Trends in Analytical Chemistry" graduate course, The University of Alabama.
- "Feasibility Report on the Manufacture of Cypermethric Acid Chloride", Undergraduate Project, The University of Madras, India. The report included Material and Energy balance, equipment design of Reactor, Absorber and Condenser, etc.

### **PRESENTATIONS / PUBLICATIONS**

- Chethan K. Acharya and Alan M. Lane, "Steam Reforming of Isobutane on Platinum-Gadolinia-Ceria Catalysts", 2002 AIChE Spring National Meeting, New Orleans, Louisiana, USA.
- Chethan K. Acharya and Alan M. Lane, "Kinetics of Steam Reforming of Isobutane on Platinum-Gadolinia-Ceria Catalysts", 2003 AIChE Spring National Meeting, New Orleans, Louisiana, USA.

### **COMPUTER SKILLS**

Operating System - MSDOS, Windows 95, 98, NT and XP.

Software - MS Office, ChemCAD, Matlab, Polymath.

Languages - C, JAVA, FORTRAN, HTML.

### **PROFFESIONAL ORGANIZATIONS**

American Institute of Chemical Engineers (AIChE).

### **HONORS / ACTIVITIES**

Graduate Research Scholar, The University of Alabama (January 2001-May 2003).

President of Association of Chemical Engineers, The University of Madras, India (Fall 1997).

STACY WAYNE BAILEY  
P.O. Box 5, Samantha, AL 35482  
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#### EDUCATION:

**Bachelor of Science:** Chemical Engineering: The University of Alabama, Tuscaloosa, Alabama  
Foundation Coalition Curriculum: GPA: 3.432/4.000 Graduated: May, 2000  
*Passed Fundamentals of Engineering Exam (FE / EIT), April 1999*

**Graduate Coursework:** Chemical Engineering: The University of Alabama, Tuscaloosa, Alabama  
Polymer engineering, thermodynamics and reactor design classes with some polymer synthesis and testing for drug delivery research. (January 2001 - June 2001)

#### TRAINING:

NEMO Stormwater Training (Tuscaloosa, Alabama)  
Non-Point Source Pollution Education for Municipal Officials (August, 2002)  
QCI Stormwater Certification (Birmingham, Alabama)  
Qualified Credentialed Inspector state certification course (March, 2003)  
Alabama Technology Transfer Center (Birmingham, Alabama)  
Meeting Stormwater Pollution Requirements (April, 2003)  
Phase 2 Stormwater Education Workshop I + II (Tuscaloosa, Alabama)  
Alabama Associated General Contractors (June, 2003)  
Watershed Management, Nonpoint Source Pollution and Stormwater Runoff Workshop (Fairhope, Alabama)  
Weeks Bay National Estuarine Research Reserve (June, 2003)  
Employee Training For Inspecting Best Management Practices (Tuscaloosa, Alabama)  
Alabama Associated General Contractors (August, 2003)

#### COLLEGIATE DESIGN PROJECTS:

- Designed a compressed natural gas tank to replace gasoline fuel source for mail-delivery vehicle.
- Designed a water tower supported by a cantilever beam to withstand given seismic forces, have a set capacity, and maintain a certain water pressure at base of tower.
- Helped correct problem of insufficient cooling water to condenser of new distillation column.
- Case study and design of plant to produce 6 million gallons of 99.99 wt% anhydrous, fuel-grade ethanol per year by refining beer using extractive distillation with glycerin solvent.
- "Problem-shot", operated, and analyzed pneumatic transport, large-scale evaporative, distillative, hydrocyclonic, and heat transfer systems and machinery.

#### EXPERIENCE:

##### **Engineering Assistant (EA2) (August 2002 - Present)**

Tuscaloosa County Public Works, Tuscaloosa, Alabama

Handled phase 2 stormwater permitting, compliance and inspection of construction projects and material pits. Created and edited documents in electronic form as needed. Performed computer hardware and software troubleshooting and maintenance. Coordinated all training scheduling. Was primary contact for development of webpage.

##### **Engineering GTA (August 1997 - May 2000)**

The University of Alabama, Tuscaloosa, Alabama

Assisted with teaching of labs for chemical engineering undergraduates. Prepared polymer samples and tested and analyzed their physical properties, including glass transition temperatures using a differential scanning calorimeter (DSC), for drug delivery research.

##### **Lab Monitor / Engineering Tutor (August 1997 - May 2000)**

Was responsible for opening and closing computer labs, maintenance, monitored use of, and enforced rules to protect computers and multi-media equipment. Tutored students in calculus, physics, chemistry, general engineering studies, statics, and chemical engineering classes.

##### **Draftsman/Design Engineer (May 1996- August 1996)**

TAMKO Roofing Products, Tuscaloosa, AL

Designed floor plans, parts and plans for equipment modification. Solved fundamental engineering problems, and performed preliminary testing and data analysis for new devices.

#### COMPUTER SKILLS:

MathCAD; ChemCAD<sup>IV</sup>; AutoCAD 13; PPC MAPLE; Interactive Physics; Therminol Crane Companion; MS Access; MS Word; MS Excel; MS PowerPoint; MS Outlook; Windows (95, 98, NT, 2000); MS Office (95-98-2000, XP); Some DOS and Linux/Unix OSs, DeLorme 3D TopoQuads; MapInfo Viewer 7.0; Adobe Acrobat 5.0; Jamar TraxPro

#### HONORS/ACTIVITIES:

National Member, American Institute of Chemical Engineers (AIChE)  
Golden Key National Honor Society  
Intramural, Co-ed, and Church basketball leagues  
University Chorus

# DEVIN M. BEVEL

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## Objective

To obtain an entry-level position in the engineering field with an emphasis on quality control, design, and/or operation of various industrial processes and systems.

## Education

**Bachelor of Science: Chemical Engineering**  
**Minor 1:** General Business  
**Minor 2:** Real Estate  
The University of Alabama, Tuscaloosa, Alabama  
Expected Graduation: May 2003  
CHE GPA: 2.8/4.0

## Relevant Coursework

Chemical Reactor Design  
Unit Operations Lab  
Health and Safety

Heat Transfer Operations  
Chemical Process Design I & II  
Engineering Graphics

## Course Projects

**Unit Operations Lab, Summer, 2002:** Operated a distillation column, an evaporator, a heat exchanger, and a reactor. Each piece of equipment was operated and/or designed to yield a product of varying specifications. PowerPoint, Excel, and CHEMCAD were used extensively.

**Chemical Process Design II, Fall, 2002:** Performed an optimum design of a typical production volume chemical plant to produce Dimethyl - terephthalate (DMT). Utilized principles developed in various Chemical engineering courses. Delegated responsibility between team members. The project was an overall economical success.

## Experience

**General Engineering Studies Teaching Assistant, August 2002 – Present**  
University of Alabama Department of Engineering, Tuscaloosa, Alabama  
Required to use Excel and several other computer programs, extensively. Assist the professor with grading, keeping attendance records, and preparing for lecture. Develop schemes to quantify questionnaire results. Tutor students on the subjects of chemistry, physics, and calculus.

**Customer Representative, Spring 2001**  
UA Residential Life, Tuscaloosa, Alabama.  
Interacted with dorm residents. Handled emergency situations. Reported any major concerns.

**Cashier, June 1998 – August 1998**  
Wal-Mart, Fairfield, Alabama  
Dealt with customers concerns. Accounted for all money collected.  
Assisted with store closing.

**Computers  
Skills**

CHEMCAD, AUTOCAD, Fortran, Fluent, Gambit, Polymath, Cap Cost, Power Point, Word, Excel, Windows, Internet

**Activities**

AICHE and NSBE member

**References**

Available upon request

## Patrick L. Burton

burto011@bama.ua.edu

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### Permanent Address:

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**Objective** To obtain an entry-level position in the chemical process industry with a future in engineering management

**Education** Bachelor of Science: Chemical Engineering  
The University of Alabama, Tuscaloosa, Alabama  
Expected Graduation: May 2004  
Minor: University of Alabama Computer Based Honors Program  
Cumulative GPA: 3.22/4.00  
Chemical Engineering GPA: 2.76/4.00

**Coursework** **Unit Operations Lab**, Summer 2003:  
Operated multistory evaporator unit, distillation tower, fluidized bed separation column, and multipass heat exchanger system  
**University of Alabama Computer Based Honors Program**, 2000-2002:  
Design Projects:  
Fall 2000, Spring 2002: Database Design  
Fall 2001-Spring 2002: LabView Programming to Control CHE Lab Magnetometer Equipment  
Fall 2002-Spring 2003: Worked with UA Theatre to Design Barcode Scanner/Ticket Database System  
**Process Dynamics and Controls**, Fall 2003  
**Chemical Process Design**, Fall 2003  
**Chemical Industry Health and Safety**, Fall 2003  
**Heat Transfer Operations**, Spring 2003  
**Chemical Reactor Design**, Fall 2002  
**Separation Processes**, Fall 2002  
**Fluid Flow Operations**, Fall 2002  
**Chemical Engineering Thermodynamics**, Spring 2002  
**Chemical Engineering Calculations**, Fall 2001

**Activities & Honors** American Institute of Chemical Engineers  
Gamma Beta Phi honor fraternity  
Phi Eta Sigma honor fraternity  
National Society of Collegiate Scholars  
John B. Thompson Alumni Honors Scholarship recipient  
Robert C. Byrd Alabama Department of Education Scholarship recipient  
William McCalla Engineering Scholarship recipient  
Clarence W. Scott Chemical Engineering Scholarship recipient

**Computer** C++, LabView, FORTRAN 90, ChemCad (V.5), AutoCAD, MatLab, Microsoft Word, Excel, and Access

References Available upon request

# JOSHUA WAYNE CARROLL

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## Permanent Address:

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Kennedy, Alabama 35574  
(205) 596-3759

email: carro009@bama.ua.edu

## Education

### Bachelor of Science: Chemical Engineering

The University of Alabama, Tuscaloosa, Alabama

Expected Graduation: May 2004

Cumulative GPA: 4.0/4.0

## Experience

- **Eastman Chemical Company, Kingsport, Tennessee – Intern** Summer 2003  
Performed chemical engineering duties including plant experiments to optimize distillation column refining system, analysis of results from previous experiments, and presenting results to management. Also performed and observed plant operation duties including walk-downs, sampling, and communicating results from plant experiments to operators for better everyday plant operation.
- **Southern Nuclear Operating Company, Birmingham, Alabama – CO-OP** August 2001-May 2003  
Performed general engineering duties including fluid flow and air flow calculations, website design, nuclear fuel research, reading, interpreting and reproducing drawings, nuclear operations research for varied components, coordinated instrument calibration project (included planning and implementation of components tracking software), helped develop new long range project/budget tracking system, and other various area of analysis and research.
- **Fayette County Board Of Education – Baseball Coach at Berry High School** January 2002-Present  
Normal coaching duties included: field maintenance and upkeep, improving community involvement, schedule development, time management, and tutoring of players in various academic subjects.
- **W.G. Yates Construction Company, Philadelphia, Mississippi** Summer 2000  
On location at Weyerhaeuser Company in Millport, Alabama. Tasks included iron working, (i.e. welding, cutting, fitting, layout of designs) and concrete structure building, reading plans and following them to build various structures. Held supervising position over other employees.
- **Fayette County Board Of Education** Summer 1997-1999  
Performed various duties at Fayette Area Career Technical School, including automobile repairs, basic automotive servicing, for faculty, staff, students, and visitors, and also performed building maintenance.

## Computers

AutoCad, Adobe Acrobat, Matlab, Excel, Internet Explorer, Frontpage Editor, Powerpoint, Word, Access, Netscape Navigator, Proto-Flo (fluids program), Windows XP, WordPerfect, Lotus 123, IPASS software (instrumentation database), ChemCad (Chemical Eng Program), Polymath

## Honors and Activities

### Academic Honor Societies:

Omega Chi Epsilon (Chemical Engineering)  
Tau Beta Pi (Engineering)  
Golden Key International Honor Society  
Phi Kappa Phi Honor Society  
National Society of Collegiate Scholars  
Gamma Beta Phi  
Alpha Lambda Delta  
Phi Eta Sigma

Chemical Engineering Student of the Year 2002 at The University of Alabama  
Sophomore Chemical Engineering Student of the Year  
Tau Beta Pi – outstanding junior and senior award  
American Institute of Chemical Engineers (AIChE)  
Graduated High School Valedictorian with Special Honors  
Boys State Representative  
Southern Nuclear Leadership Association  
Organization for Developing Leadership

## Special Skills

Certified Forklift Operator  
Automotive Servicing

## References

Available Upon Request



# KRISTEN S. CARROLL

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Daphne, AL 36526  
(251)-626-2886

## Education

**Bachelor of Science** in Chemical Engineering  
Business Certificate  
The University of Alabama, Tuscaloosa, AL  
Expected Graduation: December 2003  
Overall GPA: 3.6/4.0 Major GPA: 3.9/4.0

Business courses include Accounting, Marketing, Finance, Management, and Economics.

## Work Experience

**2002-Present Undergraduate Research Assistant, University of Alabama Chemical Engineering Department, Tuscaloosa, AL**

Project: "Synthesis and Characterization of Temperature Sensitive Block Copolymers and Interpenetrating Networks."

**Kimberly-Clark Corporation, Mobile Tissue Mill, Mobile, AL**

**Process Engineer Co-op** January 2002-May 2002 Professional Towels Manufacturing Team

Projects: UCTAD (Proprietary Technology) Tissue Machine Rebuild Start-up Team, Energy Balance and Cost Savings Analysis, Quality Analysis, Development of Process Centerlines

**Process Engineer Co-op** May 2001-August 2001 Professional Tissue Manufacturing Team

Projects: Tissue Machine Water Balance; Reduction of Fines and Stickies in Whitewater

**Kimberly-Clark Corporation Neenah, WI**

**R&D Co-op** August 2000-December 2000 Adult Care Research Competitive Intelligence Team

Projects: Researched major competitors and created competitive products database for Adult Care team

## Computer Skills

C++, Maple, ChemCAD, Polymath, Internet, Microsoft Office: Word, Excel, PowerPoint, Windows 95 - XP

## Publications

Carroll, K.S., J.B. McKinney, D.T. Johnson and C.S. Brazel, "Development of Magnetothermal Responsive Systems for Tumor Treatment," Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 30 (2003), submitted.

Carroll, K.S., J.B. McKinney, D.T. Johnson and C.S. Brazel, "Development of Magnetothermal Responsive Systems for Tumor Treatment," 30<sup>th</sup> International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 2003.

## Honors and Activities

American Institute of Chemical Engineers (National and UA Chapter)  
Omega Chi Epsilon, Chemical Engineering Honor Society  
President's Cabinet Scholarship (4 year scholarship)  
Clarence Scott Endowed Chemical Engineering Scholarship (1999 and 2001)  
Rampacek Chemical Engineering Scholarship (2002)  
Alpha Lambda Delta Honor Society  
Phi Eta Sigma Honor Society  
Dean's List (Fall 1999, Fall 2002, Spring 2003)

**References:** Available upon request

## DEVIN CHAMNESS

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Arab, AL 35016  
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(256) 586-8915 Home  
[devinchamness@hotmail.com](mailto:devinchamness@hotmail.com)

### OBJECTIVE

Obtain an entry-level engineering position to gain needed experience.

### EDUCATION

**Bachelors of Science** in Chemical Engineering  
**Minor** in General Business  
The University of Alabama, Tuscaloosa, AL  
3.00 cumulative GPA

### RELEVANT COURSE WORK

Heat Transfer  
Thermodynamics of ChE  
Fluid Mechanics  
Polymer Study  
Management  
Statics

Health and Safety  
Organic Chemistry  
Controls and Process Dynamics  
Finance  
Marketing  
Circuits

Process Design  
Reactor Design  
Separations  
Accounting  
Economics

### SPECIAL PROJECTS

- Start-up and steady-state run of distillation column. Maintained certain concentration of distillate for 1 hour.
- Start-up and steady-state run of double-effect evaporator. Maintained certain concentration of product for 2 hours in single and double effects.
- Modeled flow of fluids through certain length and diameter pipes.
- Collected data and tested performance of shell and tube heat exchanger.

### WORK EXPERIENCE

Therapy Plus, Union Grove, AL. *Physical Therapist Technician.*

6/98 - 12/00

- Interacted and administered therapy to patients.
- Communicated with people from diverse cultures.
- Achieved greater understanding of how the human body reacts to surgery, injury, etc.

Arab Primary School, Arab, AL. *Extended Day Worker.*

2/98 - 5/99

- Interacted with kindergarten – 2<sup>nd</sup> grade children.
- Assisted with homework and studies.
- In charge of 10 to 20 children for three hours after regular school hours.

Movie Gallery, Arab, AL. *Customer Service Assistant.*

9/97 – 2/98

- Handled banking transactions.
- Collected data and made decisions for seasonal advertising schemes.
- Assumed closing and opening responsibilities.

### COMPUTER SKILLS

*Operating Systems:* Windows 95/98/2000/XP

*Applications:* Excel, Word, PowerPoint, AutoCad, PolyMath, ChemCad, Matlab, SimuLink, Unix, MathCad

*Programming Languages:* HTML, Fortran

### REFERENCES

Available upon request.

# FARRIS DEANNA CHAMPION

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(205) 292-2049  
[fcampion@bellsouth.net](mailto:fcampion@bellsouth.net)

## EDUCATION

Bachelor of Science in Chemical Engineering  
**The University of Alabama, Tuscaloosa**  
Minor in Business  
Expected Graduation: December 2004, Overall GPA: 3.1/4.0  
Business courses include Accounting, Management, Microeconomics, Macroeconomics, and Legal Studies

**Calhoun Community College, Decatur, AL**  
Dates of Attendance: August 2002 – December 2002

**Bevill State Community College, Fayette, AL**  
Dates of Attendance: May 1999 – May 2001

## EXPERIENCE

### Process Engineering Cooperative Education Student

Solutia, Inc., Decatur, AL, Spring and Fall 2002

- ◆ Analyzed historical and present process data to improve future products
- ◆ Implemented process change to greatly reduce unplanned shutdowns and to highly benefit cost savings
- ◆ Developed daily engineering report to present essential process data and indicate any undesirable information
- ◆ Assisted mentor by reducing company spending through developing totally enclosed treatment facility as addition to process rather than shipping byproducts off site
- ◆ Designed process drawings for incoming employees to familiarize themselves with different areas of plant

### Office Assistant

The University of Alabama, Math Department, Tuscaloosa, AL, Fall 2001

- ◆ Office assignments, interacted with peers, students, and faculty, ran various errands, and aided in resolving any conflicts that occurred

### Receptionist

Bruce A. Perry, O.D., Fayette, AL, August 1999 – May 2001

- ◆ Office duties, assisted with patient concerns, scheduled appointments, assisted optician in the lab, and aided personnel by filing patient's insurance

## COMPUTER SKILLS

Highly experienced with Info Plus.21, Aspen Process Explorer, Aspen Process Graphics Editor, Visio, Pavilion, FORTRAN, Microsoft Word, Excel, PowerPoint, and the Internet.

## STRENGTHS

Excellent communication, leadership, organizational, and teaming skills. Highly motivated, ambitious, and hard working. Easily adaptable and enjoy learning new skills.

## ACTIVITIES/HONORS

Clarence W. and Martha T. Scott Scholar: Fall 2001 – Present  
University of Alabama Honors Scholarship: Fall 2001  
American Institute of Chemical Engineers  
Society of Women Engineers Recruitment Committee  
Emerging Leaders: Fall 2001 – Spring 2002  
Student Government Association Teacher Evaluation Committee: Fall 2001

## VOLUNTEER EXPERIENCE

Julian Harris Elementary School Extended Day Program: Spring 2002  
Russell Student Health Fair: Fall 2001  
FOCUS for Senior Citizens Thanksgiving Luncheon: Fall 2001

## REFERENCES

Available upon request

**PRAVEEN K CHEEK**

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Email: [praveen1000@hotmail.com](mailto:praveen1000@hotmail.com)

**SUMMARY**

Highly motivated professional with a solid academic background in chemical engineering and over three years of experience in research and development. A dynamic team player who works well with others at all levels of authority. Focuses on problem solving and analytical skills to accomplish established goals.

**EXPERIENCE**

**Research Scientist**

**August 2001 – February 2002**

**Product Development Group, Orica USA Inc., CO.**

- Applied catalysis for the development of new products involving the concept of composite explosives.
- Performed lab work for the development of new formulations to improve current technology for the global applications of emulsion explosives.
- Analyzed the products using DSC, SEM, Particle Analyzer, Rheometer/Viscometer etc.
- Prepared operating procedures for lab equipment

**Graduate Research Assistant**

**August 1999 – Present**

**Department of Chemical Engineering, University of Alabama**

- Designed and built a laboratory scale heterogeneous catalytic system for Autothermal Reforming of Diesel for H<sub>2</sub> production in Fuel Cell applications. Research focuses on catalyst aging, poisoning (sulfur and coke) and activity tests. Designed an adiabatic reactor to optimize the energy efficiency.
- Developed novel catalysts for the selective oxidation of carbon monoxide in a hydrogen-rich stream for Polymer Electrolyte Membrane (PEM) fuel cell applications. Synthesized Precious-metal catalysts by step-wise incipient wetness and coprecipitation methods. Examined catalysts with BET surface area, TPD/X/O, XRD, SEM, TEM and XPS analysis techniques. Measured activity, selectivity and stability of catalysts with laboratory reactor using GC and IR analysis. Designed series reactors to improve the performance.
- Simulation of the methane steam re-forming (MSR) process in a catalytic Pd-Membrane reactor.

**Graduate Teaching Assistant**

**May 2001- June 2001**

**Unit Operations Lab, University of Alabama**

- Instructing and assisting senior undergraduate students on Reaction and Mass Transfer experiments.
- Handling and distribution of software and tools used in experiments.

## **PUBLICATIONS & PRESENTATIONS**

- Reaction and Surface Characterization Study of Co and Co/Pt – Based Catalysts for the Selective Oxidation of CO in H<sub>2</sub>-Containing Streams, Chemical Engineering Journal, 4050 (2002) 1-8
- Catalytic Autothermal Reforming of heavy hydrocarbon fuels for auxiliary power units, accepted for publication by Journal of Power Sources, 2003
- Removal of Carbon Monoxide from Hydrogen-Rich Fuels by Selective Oxidation over Copper Supported Mixed Metal Oxides, accepted for publication by Catalysis Letters.
- Auto Thermal Reforming of Hydrocarbon Fuels: A Selective Review, submitted to Chemical Engineering Journal.
- Oxidative Steam Reforming of Heavy Hydrocarbons for Fuel Cells, American Chemical Society Spring National Meeting, New Orleans, USA, March 2003
- Preferential Oxidation of Carbon Monoxide in Reformate Streams, 2001 North American Catalysis Society meeting, Toronto, Canada, June 2001
- Alternate Catalysts for the Selective Oxidation of Carbon Monoxide in Presence of Excess Hydrogen, 2000 AIChE Annual meeting, Los Angeles, CA, November 2000.
- Computer Applications in Chemical Engineering, Chemosphere, India, May 1997.

## **EDUCATION**

M.S. in Chemical Engineering, 2001  
The University of Alabama, Tuscaloosa, Alabama, USA

Bachelors Degree in Chemical Engineering, 1999  
Osmania University, Hyderabad (India)

## **TECHNICAL SKILLS**

XPS, XRD, SEM, TEM, GC, MS, IR, BET, TPD, TPO, TPX, TGA, DSC, Rheometer, Particle Analyzer.

## **COMPUTER SKILLS**

C Sharp (C#), C++, JAVA, PL/SQL, HTML, FORTRAN, PASCAL, UNIX, Windows, Visual Basic, MS Word, MS Excel, MS PowerPoint, MS Access, AutoCAD, ChemCAD, MathCAD, Matlab, Polymath.

## **AFFILIATIONS / CERTIFICATIONS**

Affiliate member of American Institute of Chemical Engineers.  
Student member of American Chemical Society  
40 Hour MSHA Training/Certification.  
Basic Explosives Course Certificate from Orica University.  
Project Management certification course from Kepner-Tregoe.

## **HONORS/ACTIVITIES**

Graduate Scholarship, University of Alabama (1999-2001)  
Undergraduate: Government of India Merit Scholarship (1996-1998)  
Vice-President, Indian Student Association of Tuscaloosa (Feb 2000- Feb2001)

# AMY CHRISLEY

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**Permanent Address:**

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**OBJECTIVE**

To obtain experience in the field of chemical engineering through a summer internship

**EDUCATION**

Candidate for **Bachelor of Science in Chemical Engineering**

The University of Alabama  
Tuscaloosa, AL

Expected Graduation: May 2004  
GPA: 3.37/4.00

Calhoun Community College  
Huntsville, AL  
Summer 1999/2000  
GPA: 4.00/4.00

**EXPERIENCE**

July 1999/2000

**Child Care Staff**, Trinity Child Development Center  
Huntsville, AL

- Supervised and cared for the safety of children ages two and under
- Responsible for feeding and changing infants
- Communicated with other Child Care Staff and parents
- Managed and devoted time to all the children
- Adapted to the different needs of every child
- Learned to work with a large group of children

**COMPUTER SKILLS**

**Languages:** C++

**Operating Environments:** Windows 9x/ME/NT/2000, Mac OS 8 & up

**Business Tools:** Excel, Access, Word, PowerPoint, FrontPage, AutoCAD, Internet

**HONORS and ACTIVITIES**

**Dean's List:** Spring 2000

**President's List:** Fall 1999, Fall 2000

**Honor Societies:** Alpha Lambda Delta, National Society of Collegiate Scholars, Golden Key International Honour Society, Omega Chi Epsilon, and Phi Eta Sigma

**Position:** Hall Representative of Somerville Hall during Fall 2000 and Spring 2001, and AIChE fundraiser chair during Fall 2002.

**Volunteer:** Counselor for a Children's Music Camp and Programming Judge for the University of Alabama's Spring 2001 Computing Olympiad

**Activities:** Member of the Million Dollar Band Flag Corps and Rifle Line

# RICHARD PATRICK CLEMONS

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402 E. Parker Rd.  
Hartselle, AL 35640

Cell Phone: (256) 566-2159  
Home Phone: (256) 773-9888  
Email: PClem42@aol.com

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|                        |   |
|------------------------|---|
| <b>Objective</b>       | Recent ChE graduate seeking entry-level engineering employment.   |
| <b>Education</b>       | <b>Bachelor of Science: Chemical Engineering</b><br>The University of Alabama, Tuscaloosa, Alabama<br>Graduated: May 16, 2003<br>GPA 3.44/4.0<br>Cumulative GPA 3.59/4.0<br><br>Wallace State Community College, Hanceville, Alabama<br>Attended: Fall 1999-Summer 2000<br>GPA 4.0/4.0<br>Course work included Calculus I-III and Chemistry I-II.<br><br>Chemical Engineering Unit Operations Lab<br>Summer 2002<br>The Unit Operations Lab entailed hands on experiments involving heat exchange, evaporation, distillation, heat of reaction, and fluid mechanics. All lab experiments were researched, executed, and presented through cooperative teamwork. |
| <b>Experience</b>      | <b>Willy T's</b> , Northport, Alabama<br>Restaurant Cook, July 2002- April 2003<br>Worked food-line and cooked. Improved time-management skills, and contributed to education expenses.<br><br><b>Coffey Construction</b> , Hartselle, Alabama<br>Framer, Summer 2001<br>Laid foundations and framed houses. Developed building and team working skills.<br><br><b>C&amp;S Foodland</b> , Hartselle, Alabama<br>Cashier and Stocker, April 1999- July 2000<br>Worked full-time as cashier and stocker, while attending school. Developed people skills through dealing with customers. Assisted in store opening and closing.                                   |
| <b>Computer Skills</b> | Microsoft Office (Excel, Word, PowerPoint), Microsoft Internet Explorer 5.0, Netscape Navigator, ChemCAD, FORTRAN, Matlab, AutoCAD, Capcost, Polymath   |
| <b>Honors</b>          | Dean's List- University of Alabama<br>2001 Presidential Student Service Award (130 hours of service)<br>Omega Chi Epsilon Chemical Engineering Society<br>3M Chemical Engineering Scholarship-- University of Alabama<br>Clarence Scott Chemical Engineering Scholarship<br>President's List- Wallace State Community College<br>Wallace State Academic Scholarship<br>Phi Theta Kappa Honor Society<br>GPA 4.11/4.0 (Advanced Placement Credit) – Hartselle High School  |
| <b>Activities</b>      | Youth/Worship Leader- First United Methodist Church, Hartselle<br>AIChE member<br>Salt Mine Bible Study<br>Kids Klub – Mentor for inner city children<br>Intramural Sports (basketball, soccer, football)   |
| <b>References</b>      | Available upon request  |

## SCOTT DANIEL CLOUSE

**Current Address:**

#3 Hackberry Circle  
Tuscaloosa, AL 35401  
(205) 275-5183

**Permanent Address:**

3207 Pineville Ct.  
Jasper, AL 35503  
(205) 221-5620

[ScottClouse@msn.com](mailto:ScottClouse@msn.com)

**Objective**

To obtain an entry level position as a process engineer.

**Education****Bachelor of Science: Chemical Engineering**

General Business Minor  
The University of Alabama, Tuscaloosa, AL  
Expected date of Graduation: May 2004  
Major GPA: 3.51/4.0  
Cumulative GPA: 3.45/4.0

**Summer Interim Chemical Engineering Lab (5/13/3-6/14/3)**

The University of Alabama: Gained hands-on experience with various operations which included a full scale distillation column, evaporator, and the construction and operation of a heat exchanger. Prepared numerous proposals as well technical reports for each operation with an assigned team.

Bevill State Community College (08/99-05/01), Jasper, AL  
Core Curriculum taken. No degree earned.

**Work Experience****Golf Course Attendant: (08/02-05/03)**

The University of Alabama Harry Pritchett Golf Course Tuscaloosa, AL  
Responsibilities included: handled money, helped customers, assisted with closing as well as had a part in decision making for some activities the golf course held.

**Computer Skills**

Microsoft Word, Excel, PowerPoint, Windows 98-XP, Fortran, MatLab, ChemCad, AutoCad, Internet Explorer

**Honors/Activities**

Inducted into Phi Theta Kappa Honor Society  
Dean's List- Fall 1999, Spring 2000, Spring 2001, Spring 2003  
Presidents List - Fall 2000  
Clarence B. Scott University of Alabama Chemical Engineering Scholarship  
University of Alabama Math Scholarship  
Alabama Institute of Chemical Engineers

**References**

Available Upon Request



## Julie Dawson

**PERMANENT ADDRESS**  
1506 County Road 40 West  
Prattville, AL 36067  
(334) 365-4787

[Dawso012@bama.ua.edu](mailto:Dawso012@bama.ua.edu)  
[JulieD56@aol.com](mailto:JulieD56@aol.com)

**CURRENT ADDRESS**  
1105 Skyland Blvd. E #91  
Tuscaloosa, AL 35405  
(205) 887-1252

### OBJECTIVE

To work as a chemical engineer in either a manufacturing or project engineering position, or a chemical sales position.

### EDUCATION

#### **The University of Alabama**

Chemical Engineering, Graduating Dec. 2003  
GPA 3.20/4.00  
Chemical Engineering GPA 3.86/4.00

Tuscaloosa, AL

### CHEMICAL ENGINEERING EXPERIENCE

#### **The Dow Chemical Company**

*Project Engineer Alternating Term Co-op*

Freeport, TX  
August 2000- December 2000

- Redesigned part of the sump system to make it more environmentally efficient
- Continual research on furnaces to make them more efficient
- Researched and solved problems with fouling molecular sieve dryer

#### **The Dow Chemical Company**

*Research Engineer Alternating Term Co-op*

Midland, MI  
May 2001 – August 2001

- Researched particle sizes for drug loading to make drugs more absorbent in body
- Loaded particles with drug and tested for absorption

#### **The Dow Chemical Company**

*Manufacturing Engineer Alternating Term Co-op*

Plaquemine, LA  
January 2002 – August 2002

- Working with emissions testing to meet environmental requirements
- Redesigning RCRA tank for operations ease
- Removing iron from product stream to make it meet a more stringent customer specification
- Shutdown manager for THROX system
- Main contact for planning vessel inspections for 2002 and 2003 plant outages

### AWARDS AND SCHOLARSHIPS

- College of Engineering Scholarship – Fall 1999 – Spring 2000
- Clarence and Martha Scott Scholarship – Fall 1999 – Fall 2003
- Meredith Bean Memorial Scholarship – Fall 1999 – Spring 2000
- Autauga County Alumni Association Scholarship – Fall 1999 – Spring 2000
- University Cabinet Scholarship – 8 semesters
- Capstone Summer Honors Scholarship – 8 semesters

### ACTIVITIES (University of Alabama)

- |                         |   |
|-------------------------|---|
| Fall 1999 – present     | • Theta Tau Professional Engineering Fraternity |
| Spring 2000 - Fall 2000 | - Fundraising Chair                             |
| Fall 1999               | - Pledge Class Treasurer                        |
| Fall 2001 – present     | • American Institute of Chemical Engineers      |
| Spring 2000 – present   | • Phi Sigma Pi Professional Honor Fraternity    |
| Fall 1999 – Spring 2001 | • University Honors Program                     |
| Fall 1999 – Spring 2000 | • Circle K Service Organization                 |

## **ADAM DAYAN**

1020 Indian Hills Dr.  
Tuscaloosa Alabama, 35406  
(205) 391-0079  
dayan002@bama.ua.edu

**OBJECTIVE** To obtain an entry-level position in the manufacturing industry.

**EDUCATION** **Bachelor of Science:** Chemical Engineering  
The University of Alabama, Tuscaloosa, Alabama  
Expected Graduation: December 2004  
Cumulative GPA: 3.6

**English Language Institute**, January 1999  
- Completed Level-5 with Certificate of Proficiency

**Aloney Isaac High School**, Israel  
High School Diploma, November 1994  
GPA: 80/100

**EXPERIENCE** **The University of Alabama Critical Languages**, Tuscaloosa, Alabama  
Hebrew Instructor, (August 2000-May 2001)  
- grade papers  
- discuss class assignments  
- develop exams  
- provide written and oral instructions to students

**University of Alabama Hillel**, Tuscaloosa, Alabama  
- Board Member, 2001-2002

**University of Alabama**, Chemistry Department, Tuscaloosa, Alabama  
Undergraduate Research  
-intergrated X-Ray Analysis

**Olympia Hotel, Tel-Aviv**, Israel  
Administrative Assistant, Summer 1998  
-provide room service for customers  
-assisted customers with luggage  
-delivered mail  
-performed office duties

**Tefen Plastic Factory**, Israel  
-technician Worker, fall 1998  
-supervised machinery  
- supervised raw materials supplies

**Israeli Defense Forces**, Israel  
-First Sergeant, 1994-1997

**COMPUTER SKILLS** -Word, Power Point, Excel, Internet, Windows.

**ACTIVITIES/HONORS** -The National Society of Collegiate Scholars (NSCS)  
-Alpha Lambda Delta, Freshman National Honor Society  
-Awarded Arts & Science Outstanding Sophomore April 2001

**REFERENCES** -available upon request

## **ALISON B. DUNAGAN**

[alibama@juno.com](mailto:alibama@juno.com)  
6929A Tiffany Lane  
Chattanooga, TN 37412  
(423) 894-6831

### **Education**

**Bachelor of Science: Chemical Engineering, May 2002**

**Environmental Engineering Certificate**

The University of Alabama, Tuscaloosa, AL  
Cumulative GPA: 3.95/4.0, ChE GPA: 3.94/4.0  
Summa cum laude graduate

**Passed the Fundamentals of Engineering Exam, April 2002**

Relevant Coursework:

Transport Phenomena  
Chemical Process Design I  
Chemical Process Design II  
Polymer Materials Engineering  
Health and Safety in the Chemical Industry  
Environmental Engineering Science  
Water and Wastewater Engineering  
Hazardous Waste Management

Process Dynamics and Controls  
Chemical Reactor Design  
Chemical Engineering Thermodynamics  
Chemical Engineering Calculations  
Fluid Flow Operations  
Separation Processes  
Heat Transfer Operations  
Basic Chemical Engineering Lab

### **Experience**

**Engineering Technician**, Tom Joiner and Associates Inc., Northport, AL. July 2001 to April 2002.

Assisted in completing reports to be submitted to clients and ADEM. Compiled data in Excel and analyzed using graphs. Aided in oil and gas section of company by working with maps to locate wells and completing well permits.

**Research Position**, Clarkson University, Potsdam, NY. Summer 2000.

Researched environmental engineering issues: a study of the effect of ultraviolet light on the photo-dissociation of complex cyanides. Wrote a research paper and presented a poster at campus-wide symposium. Published in quarterly report to company.

**Rec Center Employee and Daycare Worker**, Gardendale First Baptist Church, Gardendale, AL. Summer 1997, 1998 and 1999. Worked at a church's recreational facility. Dealt with members. Assisted in closing. Helped with daycare children of all ages. Answered and directed phone calls.

### **Computers**

Microsoft Office (Word, Excel, PowerPoint, Outlook), FORTRAN, Matlab, MathCAD, QuickBooks, ChemCAD<sup>V</sup>

### **Projects**

Fluids Transport  
Dynamics of Stirred Tank Reactors  
Evaporator Column  
Batch Distillation Column

Design, Set-up, and Test of Heat Exchanger  
Septic Tank System Design  
Aniline Production Plant Design

### **Leadership/Activities/Honors**

Alabama Crew, President (1999-2000),  
Secretary (Spring 1999)  
American Institute of Chemical Engineers,  
Historian, U of A chapter (2001-2002)  
Foundation Coalition  
Fellowship of Christian Athletes  
Society of Women Engineers  
U of A Presidential Scholarship recipient  
BE & K Engineering Fund Scholarship recipient  
JGG Frost / Vulcan Chemical Engineering  
Scholarship recipient

Who's Who Among Students in American  
Universities and Colleges, 2001-2002  
Tau Beta Pi Engineering Honor Society  
Omega Chi Epsilon Chemical Engineering  
Honor Society  
Golden Key National Honor Society  
President's List  
Dean's List  
Phi Eta Sigma Honor Society  
Alpha Lambda Delta Honor Society  
Gamma Beta Phi Honor Society  
Phi Kappa Phi Honor Society

### **References**

Available upon request

**Eboni A. Faux**

**School Address:**

904 Calwell Road  
Baltimore, MD 21250  
443/857-1453  
efaux1@gl.umbc.edu

**Permanent Address:**

4060 Tarpon Lane  
Woodbridge, VA 22193  
703/680-9399  
morena1024@hotmail.com

**Objective:**

To obtain summer and/or winter internship position in chemical engineering field involving data analysis, research and development, quality control/assurance and/or operations/production.

**Education:**

**B.S. in Chemical Engineering**

University of Maryland, Baltimore County

Expected May 2005

**Environmental Engineering**

University of Miami, FL (Fall 1995-Fall 2001)

**Completed Coursework:**

- Introduction to Engineering, Chemical Engineering Analysis, Introduction to Materials, Chemical Process Thermodynamics
- Introduction to Chemistry I and II, Physical Chemistry, Organic Chemistry Lab I
- Calculus I and II, Multivariable Calculus, Ordinary Differential Equations
- Technical Writing

**Current Coursework:**

- Transport I: Fluids
- Organic Chemistry I, Advanced Chemistry Lab I

**Student Work Experience:**

**Student Staff, University Operations, University of Maryland Baltimore County**

September 2001-present

- Edit lesson plans for supervisors
- Assist in assembly of concert stages, conference rooms, audio/video equipment
- Administer assistance around University Center and Commons where needed

**Assistant, Facilities Planning & Construction, University of Miami**

July 2000-August 2001

- Logged documents, correspondences onto Expedition
- Monitored, copied incoming faxes and mail
- Administered assistance to Facilities Planning staff where needed

**Assistant, Office of Media and External Relations, University of Miami**

January-May 2000

- Allocated daily newspaper clipping regarding the University
- Relieved phones for receptionists, administrative assistants
- Administered assistance to University Relations staff where needed

**Work Study, Otto G. Richter Library - Periodicals Department, University of Miami**

August 1995-November 1997

- Returned bound, current periodicals and reference material
- Obtained requested periodicals from Brockway Storage (bound periodicals printed before 1970)
- Displayed new periodicals daily
- Completed payroll forms for student assistants of Periodicals Department

**Programming Experience:**

BASIC (1994), Pascal (1995), C Programming (1997), AutoCAD 14 (1999), AutoCAD 2000 (2001)

**Computer Experience:**

- Internet Explorer & Netscape Navigator
- Software: Expedition 6.4 (2000), Expedition 7.0 (2001)
- Microsoft Windows - MS Office: Word, Excel, PowerPoint
- Miscellaneous: Data Entry

Work History:

**Expeditor/Prep Cook, T.G.I. Friday's, Coral Gables, Florida**

March-September 1999

- Evaluated quality of food prior to service
- Prepared sauces and other foods
- Maintained clean, safe environment for co-workers

**Server & Quality Assurance (Expeditor), Bennigan's, Kendall, Florida**

August-December 1998

- Assessed quality of food prior to service
- Sustained clean, safe environment for guests, co-workers

**Concessions & Box Office, AMC Theatres - Potomac Mills Mall, Woodbridge, Virginia**

May-August 1998

- Vended food, tickets, gift certificates to movie patrons
- Provided efficient service to movie patrons
- Organized all food necessary
- Maintained clean, safe environment in front and back of concession stand

**Hostess & Server, Bennigan's, Springfield, Virginia**

June 1996-July 1997

- Welcomed, seated guests
- Maintained clean, safe environment for guests, co-workers

Affiliations & Activities:

- Engineering Council of Majors
  - ♦ Secretary (Fall 2002-Spring 2003)
  - ♦ Vice President (Fall 2003)
- Society of Women Engineers (Fall 2001-present) -- Vice-President (Fall 2002-Spring 2003)
- University of Miami Rugby Football Club (1998)
- Miss University of Miami Pageant Finalist (1997)
- Tau Beta Sigma, National Honorary Sorority (initiated Fall 1996/Spring 1997)
  - ♦ Public Relations Chairperson (1997)
  - ♦ Historian (1998-1999)
- University of Miami's Band of the Hour
  - ♦ Hurricanette Dance Line (1996-2001) -- Certificates of Recognition and Participation
  - ♦ Uniform Crew Volunteer (1997-2001)

# CHRISTOPHER BRENT FETNER

fetne002@bama.ua.edu

## Current Address:

University of Alabama  
Chemical Engineering  
P.O.Box 870203  
Tuscaloosa, Alabama 35487  
(205) 887-2722

## Permanent Address:

1814 Lanier Street SW  
Decatur, Alabama 35603  
(256) 351-7909

## OBJECTIVE

To obtain an entry level chemical engineering position with a focus on process business support and a future in engineering management.

## EDUCATION

**Bachelor of Science: Chemical Engineering**

**Minor: General Business**

The University of Alabama, Tuscaloosa, Alabama

Expected Graduation: December 2003

Cumulative GPA: 3.205/4.0 Professional GPA: 3.447/4.0

*Relevant Course Work: Summer Lab consisting of operation of Distillation column, Evaporator, Filter Press, and Heat Exchanger.*

## EXPERIENCE

**Engineering Co-Op, May 2003 – August 2003**

Kimberly Clark Corporation, Infant Care Business Support, Neenah, Wisconsin

Coordinated inter-departmental product testing. Assisted in submission of multiple Consumer Home Tests.

Coordinated purchasing of all outsourced product. Constructed an Anthropometric Database. Wrote two Technical Letters, contributed to a Technical Report, and presented all findings in a final oral presentation to department and management.

**Engineering Co-Op, January 2002 – May 2002**

Kimberly Clark Corporation, Feminine Care Research, Neenah, Wisconsin

Constructed experimental product deformation testing apparatus. Designed testing procedure for future patent application. Designed future product construction material. Wrote Technical Letter and presented all findings in final oral presentation to department and management.

**Engineering Co-Op, August 2000 – August 2001**

Ciba Specialty Chemicals, Automation Engineering Assistant, McIntosh, Alabama

Constructed production unit status reports including performance history and real time mass balance. Created problem-solving program with history based troubleshooting solutions. Participated in process hazard management evaluation team.

**Engineering Co-Op, January 2000 – May 2000**

Ciba Specialty Chemicals, Material Applications Testing Lab, McIntosh, Alabama.

Conducted chemical performance testing on manufactured chemicals. Trained replacement coop.

## COMPUTER SKILLS

**Languages-** Fortran, Visual Basic

**Applications-** LabView, Microsoft Excel, Microsoft Word, Microsoft PowerPoint, Microsoft Access, Microsoft Outlook, PI Data Retrieval Systems

**Operating Systems-** Microsoft 98, Microsoft 2000, Microsoft Millennium, Microsoft XP, Macintosh

## AWARDS AND ACHIEVEMENTS

American Institute of Chemical Engineers (AIChE) President Elect, Engineering Executive Council AIChE Representative, AIChE Peer Mentor, Million Dollar Band, UA Women's Basketball Pep Band, Circle K, Eastwood Middle School Key Club Volunteer, Boys and Girls Club After-School Volunteer, 3M Scholarship, Alabama Tire Dealers Association Scholarship, Million Dollar Band Scholarship

## REFERENCES

Available upon request.

**Benjamin Daniel Gibson**  
**(205) 674-3358**  
**LevelEye18@aol.com**

**601 Lamberth Drive**  
**Adamsville, AL 35005-1808**

### **Education**

#### **University of Alabama, Tuscaloosa, Alabama**

Bachelor of Science: Chemical Engineering  
Minor, General Business  
Graduated (cum laude): December 2001  
3.7 GPA (overall)

#### **University of Alabama at Birmingham (Aug 1995 - Aug 1997)**

Core Curriculum Coursework, no degree obtained

### **Experience**

#### **Qore Property Sciences (Birmingham, AL) April 2002 to present**

Work in the geotechnical soils lab, performing a number of tests to determine the properties of various soils for commercial and residential construction purposes.

#### **Shaw Industries (Dalton, GA), 3 Rotations from Fall 1999 – Spring 2001**

COP student. Worked at two different Shaw manufacturing plants (Plant 4, and Plant WM). At Plant #4, worked with the Project Engineers of both production lines, performed routine checks, attended staff meetings, and worked with various personnel on process improvement projects (waste water; other environmental). At Plant WM, worked under the Technical Service Manager. Job required routine line checks and daily updating of ongoing projects. Involved in various R&D projects. Aided in design ideas, worked with outside vendors and with other departments of Shaw, such as Shaw's Technical Services.

#### **UAB Patient Financial Service (Birmingham, AL), Summer 1999**

Office Worker. Performed basic clerical duties, such as copying, typing memos, and logging data. In charge of incoming mail and accounted for all the money collected. Became familiar with the PFS computer software. Used MS Excel to improve the logging methods, which used specific forms and spreadsheets.

#### **American Cast Iron Pipe Company (Birmingham, AL), Summers 1996, 1998**

Worked in Cleaning Shed #3 (Mono-cast Department) where pipes were numbered, ground, cut, cleaned, and carried to the storage yards. Worked with an electrician and a railroad crew.

#### **Tubular Products (Birmingham, AL), Summer 1997**

Used various factory machines that performed simple actions on small pieces of pipe. This included bending, tapering ends, and punching holes.

### **Computer Skills**

MS Software (Excel, Word, Internet Explorer); Basic knowledge in C++, Fortran, and Visual Basic; Daily use of Internet (for school and personal use)

### **Other Honors and Achievements**

Passed the FE Exam (chemical engineering) in October 2001  
Golden Key National Honor Society, Tau Beta Pi (National Engineering Honor Society, Alabama Beta),  
Omega Chi Epsilon (National Chemical Engineering Honor Society)

### **References furnished upon request**



## DAVID LAWRENCE GOBER

622 4<sup>th</sup> St. NE Apartment # 10 • Tuscaloosa, AL 35404 • phone: 205-562-6323  
email: gober002@bama.ua.edu

### OBJECTIVE

Engineering position in a petroleum company with the possibility for overseas experience.

### EDUCATION

**The University of Alabama**, Tuscaloosa, Alabama, August 1998-Present

Bachelor of Science, Chemical Engineering; Computer-Based Honors Program (minor); Certificate of Business;  
Honors Program Certificate; May 2003

GPA: 3.50/4.00 Dean's List 6 semesters

### AWARDS/HONORS

SGA Outstanding Committee Chair, 2002  
-given for organization of Capstone  
Event 2002, community service day,  
participation: 650 persons  
SGA Foundation Award, 2001  
-given for organization of Capstone Event 2001  
Computer-Based Honors Program, Outstanding  
Junior, 2001

Randall Undergraduate Research Award, 2001  
- given for Computational Fluid  
Dynamics research, spring 2000  
Presidential Scholar, University of Alabama  
William Byrd Scholar, State of Mississippi  
JGG Frost Endowed Scholar, Vulcan Materials Co.  
Mike Graham Endowed Scholar

### ACTIVITIES

Student Government  
Computer-Based Honors Program  
Lambda Chi Alpha fraternity

University Honors Program  
Extensive Community Service  
Consistent Involvement in Music

### RELATED EXPERIENCE

Chemical Engineering Summer Lab, Summer 2002

Experience Included:  
extensive group work  
proposal preparation  
presentation experience

Hands-on Time with Industry Modules:  
evaporator      distillation column  
heat exchanger      reactor  
fluid flow

Research Assistant – Dr. John Weist, Summer 2001

-Utilized Computational Fluid Dynamics to model various systems

Computer-Based Honors Program – Dr. John Weist, Summer 2000

-Utilized CFD's to model transport phenomenon

-Wrote tutorials for these programs used in CHE 424 Transport Phenomenon

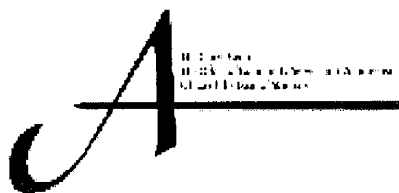
Computer-Based Honors Program—Dr. Jonathan Huddleston, Fall 1999

-Used MathCAD to obtain activity coefficients for two-phase systems of varying concentration

### ADDITIONAL INFORMATION

Computer Skills:      Strong Excel Background • MathCAD and Polymath •  
CFD packages Fluent and Gambit •      Limited Programming, Fortran and C

Personal:      Some Overseas Experience: Europe and Latin America • Optimistic •  
Quick Learner • Highly Motivated • Easy going



# The University of Alabama

## Co-Curricular Record

(A self-reported document)

### David L. Gober

gober002@bama.ua.edu

622 4<sup>th</sup> St. NE Apt. 10  
Tuscaloosa, AL 35404  
(205) 562-6323

### Leadership

| <u>Semester/Year</u>         | <u>Activity/Experience</u>   | <u>Position/Role</u>                                | <u>Duties</u>  | <u>Development/Skills</u>  |
|------------------------------|--|---|--|--|
| Fall 2000-<br>Present        | Capstone Event   | Chairperson<br>(three-time)                         | Lead the C.E.<br>committee;<br>Organize the<br>Capstone Event, a<br>day of community<br>service for all UA<br>students;<br>Participation in<br>2002: 650 persons | Large event<br>planning,<br>delegation of<br>responsibilities,<br>group organization;<br>Set lofty goals and<br>motivating to<br>achieve |
| Fall 1999-<br>Spring<br>2000 | Student<br>Government<br>Association:<br>External Affairs<br>Committee | Chairperson:<br>Tuscaloosa<br>Business<br>Relations | Liaison between<br>Tusc. businesses<br>and the SGA   | Multi-tasking,<br>adapting quickly to<br>changing<br>instructions  |
| Spring<br>2001               | Higher Ed. Day,<br>Montgomery, AL.                                     | Univ. of<br>Alabama,<br>representative              | Represent UA in<br>lobbying for Higher<br>Education funding  | Inter-personal<br>communication with<br>superiors  |
| Fall 1999-<br>present        | Calvary Baptist<br>Church  | Student<br>Leader                                   | Lead small group<br>bibles studies,<br>represent college<br>ministry   | Build constructive<br>relationships,<br>reliability, listening<br>skills   |

**Service**

| <u>Semester/Year</u>  | <u>Activity/Experience</u>   | <u>Position/Role</u> | <u>Duties</u>   | <u>Development/Skills</u>  |
|-----------------------|--|----------------------|---|--|
| Summer 1998 and 2001  | Mission trips to Mexico and Venezuela, respectively                  | Participant          | Provide physical and spiritual needs for malnourished individuals | Broad exposure to a variety of cultures; New awareness of my role in society   |
| Summer 2001           | Restoration Ministries; Chicago, IL                                  | Intern               | Assist with service projects for the inner city                   | Renewed humility and gratitude for blessings; Working with very diverse groups |
| Fall 1998-Spring 2001 | On-campus Involvement (Lambda Sigma, Golden Key, Triangle, Circle K) | Participant          | Devote time to young children, disabled and impoverished          | Value of contributing to the betterment of society                             |

**Various Involvement**

| <u>Semester/Year</u>  | <u>Activity/Experience</u>  | <u>Position/Role</u> | <u>Duties</u>   | <u>Development/Skills</u>   |
|-----------------------|---|----------------------|---|---|
| Fall 1998-Fall 2001   | Computer-Based Honors Program   | Member               | Complete projects by deadline and present   | Computer, group, and presentation skills  |
| Fall 1998-Spring 2002 | Lambda Chi Alpha fraternity   | Member               | Support house functions, recruitment, invest time in others                           | Cooperation despite differences among group members   |
| Fall 1998-Spring 2002 | Music Involvement [member of: Marching Band, Wind Ensemble, Univ. Chorus, Symphonic Band, church choir] | Member               | Attend all rehearsals and performances, devote time for practice outside of rehearsal | Full commitment to an organization, placing it above other involvement; Effective time management |
| Fall 2002-Spring 2003 | Arabic language   | Student              | Invest extraordinary time towards learning a new language                             | Hopefully at least a small proficiency in the Arabic language                                     |

# JOHN CASEY GOODWIN

## PERMANENT ADDRESS:

71 County Road 391  
Killen, AL 35645

UAJC@yahoo.com

256-757-9850

256-710-2214

## OBJECTIVE:

To obtain an entry-level position as a safety or operations engineer with a future in engineering management.

## EDUCATION:

**The University of Alabama-Tuscaloosa, AL**  
*Bachelor of Science in Chemical Engineering*  
*Minor in Business Administration*  
GPA 2.7/4.0

Graduation Date: August 2003

## UNIT OPERATIONS EXPERIENCE

- Operated Distillation Column at Steady State
- Calibrated GC and operated for concentration
- Operated small scale heat exchanger
- Researched theory and calculations of experiments
- Designed a viscometer for an unknown oil
- Operated single and double effect evaporator
- Determined extent of reaction for a small scale reactor
- Prepared concise reports of the results obtained

## WORK EXPERIENCE

### **University of Alabama Chemical Engineering Dept.**

#### **Lab Assistant**

- Analytical experience with conductivity and atomic absorption.
- Flux determination for polymerized membranes as a function of pressure.
- Design of precursors for polymeric, strong acid, catalytic membrane reactors.

#### **Darden Restaurant**

#### **Server**

**Florence Conference Center**

**Banquet Setup Asst.**

Tuscaloosa, AL  
July 2002 - September 2003

Florence & Tuscaloosa, AL  
May - September 2000  
Florence, AL  
May 1998-August 1999

## COMPUTER SKILLS

- ChemCad
- Polymath
- MatLab
- DOS
- C++
- AutoCad
- CapCost
- UNIX
- PowerPoint
- Microsoft Excel
- Microsoft Word
- Windows 95, 98, XP

## AWARDS & ACHIEVEMENTS

- Presidential Scholarship at Northwest Shoals Community College, 1998
- Randall Undergraduate Research Award, April 2003
- Membrane-based Nanostructured Metals for Reductive Degradation of Hazardous Organics-2003 EPA Science Forum, May 2003

## ACTIVITIES

- American Institute of Chemical Engineers (AIChE)
- Future Alumni for Tradition and Excellence (FATE)
- Cahaba River Society
- Tuscaloosa Canoe & Kayak Club

**REFERENCES:** Available upon request

## **MIRANDA GRAVES**

P.O. Box 46, Brierfield, AL 35035  
(205) 665-1833  
grave024@bama.ua.edu

**Objective:** To obtain a position as a chemical engineer with an emphasis on research.

### **School:**

**Bachelor of Science in Chemical Engineering**  
The University of Alabama, Tuscaloosa, Alabama  
Mathematics Concentration  
GPA: 2.59

May 2004

**Bachelor of Science in Chemistry**  
Judson College, Marion, Alabama  
Mathematics Minor

1998-2002

Bibb County High School, Centreville, Alabama  
Advanced Diploma

1994-1998

### **Work Experience:**

Professional Electronics Company.

Summers 1997-2002

Assembled computer boards, boat harnesses, boat panels, and other wiring harnesses.

Judson College work-study program.

Chemistry Department. Dr. George Williams, Professor. Typed tests and made solutions for labs.

Assisted in the dining room. Helped with the food placement and worked as a caterer when needed.

Ezy Rider. Chemical Engineer Intern. Mixed paints, putties, and other solutions.

### **Relevant Course Work:**

General and Organic Chemistry, Physical Chemistry, Quantitative Analysis, Chemistry Seminar, Calculus I-IV, Elementary Linear Algebra, Foundations of Mathematics, Chemical Calculations, Engineering Physics, Engineering Materials

### **Computer Skills:**

Word, Power Point, Excel, Windows 95-98, AutoCad, Internet Applications, C++ Programming, Spreadsheet Applications, Dos and Windows, Database Application, MarkUp Language, Web Programming, Visual Basic Programming

### **Honors and Activities:**

National Honor Society, Who's Who Among American High School Students, member of Society of Women Engineers (SWE) and American Institute for Chemical Engineers (AIChE)

**Reference:**

Available upon request.

## GUANGHONG GUO

guo002@bama.ua.edu

1118 Hackberry Lane, Apt. A8  
Tuscaloosa, AL 35401

(205) 247-5362(home)  
(205) 348-1624(office)

**OBJECTIVE** To obtain a internship or entry-level research and development position in the field of mechanical engineering, aerospace engineering or chemical engineering.

**INTEREST** Computational Fluid Dynamics (CFD), Engineering Computation, Chemical Engineering Equipment and Machinery Design

**EDUCATION** Ph.D Candidate: Engineering Science and Mechanics (GPA 3.92/4.0)  
The University of Alabama, Tuscaloosa, AL, 08/2004 (expected)

Master of Science: Engineering Science and Mechanics (GPA 3.875/4.0)  
The University of Alabama, Tuscaloosa, AL, 12/2001

Master of Engineering: Chemical Engineering Machinery (GPA 3.26/4.0)  
Tianjin University, Tianjin, China, 03/1996

Bachelor of Engineering: Chemical Engineering Machinery (GPA 80/100)  
Tianjin University, Tianjin, China, 07/1993

**RESEARCH EXPERIENCE** Graduate Research Assistant: (01/2002~present)  
Research Project: Two-phase Fluid Flow and Inclusion Removal in Continuous Casting Tundish, project sponsored by the American Iron and Steel Institute  
The University of Alabama, Tuscaloosa, AL

- Using **Star-CD** to establish and simulate the process
- Changing different particle removal pattern, comparing the results and finding the best pattern
- Compiling Fortran Program to realize the modeling work

Graduate Research Assistant: (07/1993~03/1996)  
Research Project: Experimental Study and Simulation of the drying process in the spin flash dryer  
Tianjin University, Tianjin, China

- Set up the experimental equipment, changed different operation conditions and got the results
- Compiled Fortran Program to simulate the drying process and compared the results with experimental data

**TEACHING EXPERIENCE** Graduate Teaching Assistant: (08/2000~12/2001)  
Department of Aerospace Engineering and Mechanics, The University of Alabama, Tuscaloosa

- Taught ESM312 Fluid Mechanics Lab and ESM251 Material Mechanics Lab
- Tutored and Graded homework of ESM311 Fluid Mechanics

**WORKING EXPERIENCE** Engineer of China Huanqiu Chemical Engineering Company, Beijing, P. R. China (04/1996~07/2000)

- Design of Cracking Furnace of a VCM Plant in Panjin, P. R. China (10/1996~03/1999)
- Design of Water-bath Heater of a Silica-Gel Plant in Bangladesh (06/1998~09/1999)
- Design of Pressure vessels used in Chemical Engineering Plants (04/1996~07/2000)

**INTERNSHIP** Practice in Shijiazhuang Fertilizer Plant, P.R.China (09/1992~10/1992)

**SKILLS** Star-CD, Fidap, C++, Fortran, Matlab, Basic MS Windows 9x/2000/NT, MS Office (Word, Excel, Powerpoint), AutoCAD Bilingual – Chinese

#### **PUBLICATIONS**

1. G. Guo and M. A. R. Sharif, Mixed convection in cavities with moving isothermal sidewalls and constant heat flux from partially heated bottom wall, submitted to International Journal of Heat and Mass Transfer, 2003
2. G. Guo and M. A. R. Sharif, Mixed convection in rectangular cavities with partially heated constant heat flux bottom wall and moving side walls, BSME-ASME International Conference on Thermal Engineering, 31 December 2001~02 January 2002, Dhaka, Bangladesh



## ZHE GUO

P.O. Box 870203  
Tuscaloosa, AL 35487  
Tel: (205) 454-4299  
E-mail: guo001@bama.ua.edu

**OBJECTIVE** A position that requires extensive experience and knowledge in Chemical and Environmental Engineering

**INTERESTS** Separation and Extraction, Reaction Engineering, Paper Industry, Process Control, Computer Simulation, Surface Science and Catalyst Research

### EDUCATION

**Ph.D.** in Chemical Engineering (Expected Graduation: May, 2002)

**The University of Alabama**, Tuscaloosa, AL.

**M.S.** in Chemical Engineering

Aug., 2001

**The University of Alabama**, Tuscaloosa, AL.

**M.S.** in Chemical Engineering

Jul., 1997

**Tianjin University**, Tianjin, P.R. China

**B.E.** in Chemical Engineering

Jul., 1994

**Tianjin University**, Tianjin, P.R. China

### EXPERIENCE

#### Research Assistant

**The University of Alabama**, Tuscaloosa, AL

Jan. 1999-present

**Graduate Research** Aqueous Biphasic Systems as the Alternative for the Kraft Pulping Process with Metal Salts as Catalyst

- Phase diagram study for the Aqueous Biphasic Systems
- Lignin partitioning in Aqueous Biphasic Systems
- Applications of Tappi standard methods
- Kinetics study for the delignification process
- Factor design experiments for Catalyzed ABS pulping
- Semi-batch reactor design and development for ABS pulping process

**Tianjin University**, Tianjin, P.R. China

Sep., 1994-Dec., 1998

**Graduate Research** The Study of Membrane in Catalysis Dehydrogenation of Diethylbenzene

- Fix-bed catalysis reactor design
- Catalyst preparation and characterization
- Membrane preparation and characterization
- Membrane catalysis reactor design and application
- Applications of catalysis experimental methods (GC, TEM, SEM, XRD, XPS, TPD, TPR, BET, DTA)
- Reaction mechanisms and kinetics study

**Tianjin University**, Tianjin, P.R. China

Mar., 1994-Jul., 1994

**Undergraduate Research** Study on the Catalyst of CO Hydrogenation to Methanol

- Catalyst preparation and characterization
- Applications of catalysis experimental methods

#### Teaching Assistant

|  |                       |
|--|-----------------------|
| <b>University of Alabama, Tuscaloosa, AL.</b>                            | May, 1999-Jun., 1999  |
| Supervising undergraduate students in the unit operation lab experiments |                       |
| <b>Tianjin University, Tianjin, P.R. China</b>                           | Jun., 1995-Jul., 1995 |
| Supervising undergraduate students in catalyst production practice       |                       |

#### **Internship**

|                                   |             |              |
|-----------------------------------|-------------|--------------|
| Tianjin Petrochemical Corporation | P. R. China | Summer, 1995 |
| Nanjing Chemical Corporation      | P. R. China | Summer, 1994 |
| Jilin Chemical Corporation        | P. R. China | Summer, 1993 |

#### **COMPUTER SKILLS**

**Programming Skills** Proficient in C/C++, JAVA and FORTRAN programming  
**Modeling & Simulation** MathCAD, ChemCAD, MATLAB  
**Others** Windows2000/NT, DOS, MS Office, SigmaPlot

#### **ELECTIVE COURSES TAKEN**

Digital Control, Surface Science, Scanning Electron Microscopy, Transmission Electron Microscopy, Advanced Fluid Dynamics, Polymer Materials Engineering, C/C++ Programming, Java Programming.

#### **HONORS/ MEMBERSHIP**

**Tianjin University, Tianjin, P. R. China**  
 Outstanding Student Fellowship  
 Solar Engineering Scholarship  
 Hua Chang Scholarship  
**University of Alabama, Tuscaloosa, AL**  
 American Institute of Chemical Engineers

#### **PUBLICATIONS / PRESENTATIONS**

1. J. G. Huddleston, **Zhe Guo**, H. D. Willauer, M. Li, G. C. April and R. D. Rogers, Aqueous Biphasic Reactive Extraction Applied to the Pulping of Lignocellulosics, in preparation
2. **Zhe Guo**, M. Li, H. D. Willauer, J. G. Huddleston, R. D. Rogers and G. C. April, PEG-Based Aqueous Biphasic Systems as Improvement for Kraft Hardwood Pulping Process, accepted by *Chemical Engineering Communications*
3. **Zhe Guo**, M. Li, H. D. Willauer, J. G. Huddleston, R. D. Rogers and G. C. April, Evaluation of Polymer-Based Aqueous Biphasic Systems as Improvement for Hardwood Alkaline Pulping Process, accepted by *Industrial & Engineering Chemistry Research*
4. **Zhe Guo**, J. G. Huddleston, R. D. Rogers, G. C. April, Influence of Reaction Parameters in Hardwood Delignification with Metal Salt Catalyzed Aqueous Biphasic Systems, 2001 AIChE Annual Meeting, Reno, NV, Nov., 2001
5. **Zhe Guo**, J. G. Huddleston, R. D. Rogers, G. C. April, Delignification of Hardwood in Aqueous Biphasic Systems with Metal Salts as Catalyst, 2001 AIChE Annual Meeting, Reno, NV, Nov., 2001
6. **Zhe Guo**, J. G. Huddleston, R. D. Rogers, G. C. April, Research on Polymer-Based Aqueous Biphasic Systems as Alternative for Hardwood Kraft Pulping Process, Tri-State Engineering Societies Meeting, Destin, FL, June, 2001
7. **Zhe Guo**, H. D. Willauer, J. G. Huddleston, R. D. Rogers and G. C. April, Polymer-Based Aqueous Biphasic Systems as Alternative for Kraft Pulping Process, 2001 AIChE Spring National Meeting, Houston, TX, Apr., 2001

8. **Zhe Guo**, M. Li, H. D. Willauer, J. G. Huddleston, R. D. Rogers and G. C. April, Polymer-Based Aqueous Biphasic Systems as Improvement for Kraft Hardwood Pulping Process, 2000 AIChE Annual Meeting, LA, CA, Nov., 2000
9. **Zhe Guo**, Z. Ma, Y. Qin, X. Qi, and L. Zhang, Study of Active Phase of Iron-Based Catalyst of Diethylbenzene to Divinylbenzene, *Acta Petrolei Sinica <Petroleum Processing Section>*, Vol. 15, No.5, 81, 1999
10. **Zhe Guo**, X. Qi, Z. Ma, L. Zhang, and Y. Qin, Effects of Potassium and Calcium Promoters on Properties of Iron-Based Diethylbenzene Dehydrogenation Catalyst, *Acta Petrolei Sinica <Petroleum Processing Section>*, Vol. 15, No.4, 72, 1999
11. X. Qi, Z. Ma, **Zhe Guo**, T. Wang, and Q. Liao, Study on the application of  $\text{Al}_2\text{O}_3$  membrane in dehydrogenation of diethylbenzene, *Chemical Reaction Engineering and Technology*, Vol.17, No.6, 354, 2001
12. H. D. Willauer, J. G. Huddleston, M. Li, **Zhe Guo**, G. C. April, and R.D. Rogers, Polymer-based Aqueous Biphasic Systems for Reaction Engineering of the Kraft Pulping Process, Abstract Paper, ACS, 2000, 220th
13. X. Qi, Y. Qin, L. Zhang, and **Zhe Guo**, The effects of promoter calcium on catalyst properties of diethylbenzene dehydrogenation, *Petrochemicals*, Vol. 28, No.12, 807, 1999
14. J. Wang, Q. Liao, **Zhe Guo**, and Y. Shao, Study on the Catalyst of CO Hydrogenation to Methanol, Tianjin Chemical Process Annual Academic Meeting, Tianjin, P.R.China, Sep., 1996
15. Q. Liao, J. Wang, **Zhe Guo**, and Y. Shao, Study on Decomposition of Methanol on Pd-Series Catalysts, The 8<sup>th</sup> Chinese National Conference on Catalysis, P.R.China, Oct., 1996

## MATTHEW H. HABEL

Current address:  
1009 12<sup>th</sup> Street # 30  
Tuscaloosa, Alabama 35401  
(205) 391-2003  
obiwan\_65@yahoo.com

Permanent Address:  
681 Rainbow Ave N. W.  
Rainsville, Alabama 35986  
(256) 638-3605

### Objective

To obtain an entry level position in Chemical Engineering

### Education

**Bachelor of Science: Chemical Engineering**  
The University of Alabama, Tuscaloosa, Alabama  
Expected Graduation: May 2002  
Cumulative GPA 3.65/4.0 CHE GPA 3.59/4.0

**High School Diploma**  
Plainview High School, Rainsville, Alabama  
Graduated: Spring 1998  
GPA: 4.23/4.0 99.38/100

### Experience

**Student Worker Engineering Dean's Office**, Fall 2000 to Present. University of Alabama, Tuscaloosa, Alabama.  
Answered phone calls, which ranged from the general public to large companies. Made Xerox copies and ran errands across campus. Prepared fliers and other literature for the College of Engineering.

**Knitter**, Summer 1999 and Summer 2000. American Hosiery, Fyffe, Alabama.  
Operated and monitored twenty or more KN or CSJ knitting machines. Performed small repairs and added more yarn, elastic, and nylon when necessary. Retrieved the socks from baskets on the machine, inspected the socks, and turned the socks inside out if passed inspection. Trained other individuals when training was needed.

**Optician's Assistant**, Summer 1997 and Summer 1998. Vision Plus Eyecare, Rainsville, Alabama.  
Catalogued Lenses. Certified that lens powers were correct. Assisted the Optician in cutting the lenses to fit the patient's eyewear. Certified that the job was done correctly. Dispensed eyewear to patients. Helped answer the phones, file files, and make appointments for patients when necessary.

**Landscaper**, Summer 1995 and Summer 1996. Rainsville, Alabama.  
Mowed lawns. Trimmed hedges and trees. Raked leaves and grass trimmings. Planted bushes and flowers. General upkeep of lawn.

### Computers

C++, Fortran, Microsoft Word, Microsoft Excel, Microsoft Works, Microsoft Power Point, Adobe Acrobat Reader 4.0, WordPerfect 9, AutoCAD, Dos, Windows, web browsers, spreadsheets

### Leadership

Gamma Beta Phi — Treasurer; Participated in various item drives for organizations and causes such as Toys for Tots, West Alabama Aids Outreach Foundation, Beat Auburn Beat Hunger (canned food drive), and for needy families  
Alpha Lambda Delta  
Phi Eta Sigma  
National AIChE  
University of Alabama AIChE — President, Vice President, President-Elect, Head Intramural Director  
Tau Beta Pi  
The National Society of Collegiate Scholars  
Golden Key  
Omega Chi Epsilon  
President's List  
Dean's List  
Volunteer Tutor

### References

Available upon request.

Campus Information:  
1900 Rice Mine Road North  
Apartment #112  
Tuscaloosa, AL 35406  
Phone 205-342-9020

## MICHAEL ERIC HALLMAN

hallm006@bama.ua.edu

Permanent Contact Information:  
6835 Oakview Lane  
Cottondale, AL 35453  
Phone 205-462-1351  
Fax 1-775-254-153

### EDUCATION

Bachelor of Science, Chemical Engineering, Computer-Based Honors (minor), University of Alabama, Tuscaloosa, AL

Expected Graduation Date: May 2004

Current GPA: 3.017

Credit Hours Earned: 121

Participant in UA College of Engineering T.I.D.E. Curriculum

(A Division of the National Science Foundation's "Foundation Coalition")

### EMPLOYMENT EXPERIENCE

"Process Control Systems Engineer," International Paper, Courtland, Alabama, May-August 2000

- Created informational spreadsheets for analysis of data, programmed subroutines by creating source code, created graphical user interfaces for use by operators

"Pharmacy Technician," Jim Myers Drug, Inc., Tuscaloosa, Alabama, May-August 2001

- Production of Albuterol Sulfate and Ipratropium Bromide breathing treatment solutions

### COMPUTER EXPERIENCE

Microsoft Word, Excel,  
FrontPage, Publisher  
PowerPoint, Access,  
Visio

Windows 9x/2000/XP  
Maple software  
MATLAB  
MathCAD software

X-Windows Platform  
AIX/UNIX Platforms  
FOXBORO software  
ChemCAD software

FLUENT & Gambit  
software  
FORTRAN 90 & C  
programming languages

### UNDERGRADUATE RESEARCH OPPORTUNITIES

"Modeling of Drug Release from Porous Hydrogels"; directed by Dr. Christopher S. Brazel, associate professor in chemical engineering; University of Alabama

- Drug release study for Theophylline, Methylene Blue, Proxiphylline, Buflomedil HCl in PVA polymers

"Virtual Lab Components for Transport Phenomena Course"; directed by Dr. Duane T. Johnson, assistant professor in chemical engineering; University of Alabama

- Webpage tutorial developed for projects in Gambit® and Fluent® software in AIX platform

"Computer Modeling of a Coaxial Shear Magnometer (COSM)"; directed by Dr. Duane T. Johnson, assistant professor in chemical engineering; University of Alabama

- Constructed a COSM under study using Gambit® and Fluent® software while incorporating Carreau fluid flow properties.

### ACTIVITIES & HONORS

American Institute for Chemical Engineers Student Chapter (Webmaster, President-Elect, President)

National American Institute for Chemical Engineers Gold Member

Society of Women Engineers

Carl A. Elliott Society (President, Webmaster)

University of Alabama Future Alumni for Tradition and Excellence (FATE)

Ten Troupe Gymnastics Fan Club

Summer Counselor for University of Alabama Student Introduction to Engineering (SITE)

Participant in Alternative Spring Break Program (2002 New York City Team, 2003 Jamaica Team)

University of Alabama "Million Dollar Band" (trombone section member, band staff member, band staff coordinator)

Alabama State Board of Health Licensed Emergency Medical Technician (Basic Level, CPR Certified, Emergency Vehicle Operator's License)

Recipient of 2001 Randall Undergraduate Research Award

Recipient of UA Alumni Honors Scholarship, UA Chemical Engineering Departmental Scholarship, Robert C. Byrd

Congressional Scholarship, and UA Computer-Based Honors Program Fellowship

Member of Omega Chi Epsilon Honor Society, Golden Key International Honour Society, Gamma Beta Phi Honor Society,

National Society of Collegiate Scholars (NSCS), Phi Eta Sigma Honor Society, Alpha Lambda Delta, University Honors

Program (UHP) / Honors Program Students of America (HPSA), Computer-Based Honors Program (CBHP), and Omicron

Delta Kappa Honor Society

### REFERENCES

Available Upon Request

**JULIE MARIE HOLDSWORTH**  
1208 9th AVENUE APT. 3  
TUSCALOOSA, AL 35401  
(205)248-6308 home, (334)467-6677 cell  
holds001@bama.ua.edu

#### **OBJECTIVE**

A full-time position in chemical or environmental engineering.

#### **EDUCATION**

Bachelor of Science in Chemical Engineering, Environmental Engineering Certificate  
The University of Alabama-Tuscaloosa  
Graduation Date: May 2003  
Che GPA: 2.57

#### **SUMMER LAB**

A five week extensive study and demonstration of pilot-scale industrial equipment providing exposure to operation, safety procedures, and teamwork. The Unit Operations Laboratory is set up to simulate a working environment with required technical proposal deadlines, presentations to Professors, and peer reviews. State-of-the-art visualization equipment is used in the research and instruction in distillation, extraction, and reaction engineering.

#### **EMPLOYMENT**

|   |                   |
|---|-------------------|
| Office of Sponsored Engineering Programs  | Fall 2000-Present |
| Office assistant for the faculty and staff. Duties include distributing monthly reports, maintaining files, and various clerical tasks. |                   |
| University of Alabama Chemical Engineering Department   | Summer 2000       |
| Office assistant to the Dean and staff. Duties include various clerical tasks.  |                   |

#### **UNIVERSITY OF ALABAMA CLUBS AND ACTIVITIES**

|  |              |
|--|--------------|
| American Institute of Chemical Engineers | 1998-Present |
| Student Government Association           | 1999         |
| Alpha Omicron Pi Social Sorority, Alumni | 1998-2002    |

#### **UNIVERSITY OF ALABAMA SCHOLARSHIPS AND AWARDS**

The Clarence W. and Martha T. Scott Freshman Scholar Scholarship from the College of Engineering  
The Moxley Memorial Scholarship from the College of Engineering  
The Joe Macon, Jr. Scholarship from the Montgomery/Lowndes County Alumni Charter of the University of Alabama  
Montgomery Business Women Association Scholarship, 1999  
Alabama Business Women's Association Scholarship, 2000-2002

#### **COMPUTER SKILLS**

Microsoft Excel, Word, PowerPoint, ChemCad, CapCost

\*References can be furnished upon request.

# XIAO HUANG

87-03, 55th Ave. #1  
Elmhurst, NY 11373

(718)205-2636  
Xiao.huang@ua.edu

**OBJECTIVE** To obtain a postdoctoral or entry-level research and development position in the field of Chemical Engineering, Polymer Chemistry, Pharmaceuticals, or Biotechnology.

**EXPERIENCE** **Graduate Research Assistant, 8/1999-8/2002**  
Research Project: Analysis of the burst effect for small molecular weight solutes release from poly(vinyl alcohol) hydrogels.

The University of Alabama, Tuscaloosa, AL

- Prepared drug-loaded crosslinked poly(vinyl alcohol) (PVA) samples.
- Conducted dynamic swelling experiments on hydrogel samples.
- Conducted drug release experiments in dissolution and sampling system.
- Conducted SEM, DSC, FTIR, Instron experiments to study the properties of PVA hydrogels.
- Learned to operate Confocal Laser Scanning Microscope (CLSM).
- Established mathematical models to simulate the release process, especially the initial burst part, of the solutes from swellable polymer network.
- Compiled C++ program to realize the modeling work.

**Graduate Research Assistant, 9/1995-3/1999**

Research Project: Non-ideal mixing in stirred batch bioreactors.

Tianjin University, Tianjin, China

- Studied non-ideal mixing of non-Newtonian fluid in stirred bioreactors by the measurement of circulation time distribution (CTD) by flowing-follower method.
- Compared and discussed mixing properties of traditional Rushton turbine and a novel axial-flow impeller by analyzing the CTD results.
- Established structured mixing models to simulate the circulation time distribution.
- Compiled C++ and Fortran programs for modeling study.

**Undergraduate Research Assistant, 3/1995-7/1995**

Research Project: Study on kinetics of *Xanthan* fermentation.

Tianjin University, Tianjin, China

- Conducted batch and semi-batch *Xanthan* fermentations
- Studied the kinetics of cell growth, *Xanthan* gel production, and C-source consumption.
- Discussed fermentation results under different initial C- and N-source concentrations.
- Applied Artificial Neural Network (ANN) in the simulation of fermentation kinetics.

**Engineering Internship**

Jiuhuan Group, Shandong, China, 7/1996-8/1996

Shijiazhuang Pharmaceutical Corporation, Hebei, China, 7/1994-8/1994

Cangzhou Chemical Corporation, Hebei, China, 7/1993-8/1993

**EDUCATION** **Ph.D: Chemical Engineering**  
The University of Alabama, Tuscaloosa, AL, 8/2002 (GPA 4.0/4.0)

**Master of Science: Biochemical Engineering**  
Tianjin University, Tianjin, China. 3/1998 (GPA: 92/100)

**Bachelor of Engineering: Biochemical Engineering**  
Tianjin University, Tianjin, China, 7/1995 (GPA: 89/100)

**AFFILIATIONS** American Institute of Chemical Engineers (AIChE), 7/2000-present  
American Chemical Society (ACS), Polymer Chemistry division, 6/2000-present

**SKILLS** SEM, DSC, TGA, UV-Vis spectroscopy, FTIR, HPLC/GPC, Instron, CLSM, Dissolution systems, etc.  
C++, MS Windows 9x/2000/NT, MS Office (Word, Excel, Powerpoint), Fortran, Basic, Matlab, Mathcad, Chemcad, Sigma Plot, Bilingual - Chinese.

## XIAO HUANG

### HONORS

Dean Paul Garner Scholarship by Tuscaloosa's International Friends, Dec 2001, Tuscaloosa, Alabama.  
Graduate Council Research Fellowship for summer, 2001, May 2001, The University of Alabama.  
Graduate Council Research Fellowship for 2001-02 academic year, Mar 2001, The University of Alabama.  
College of Engineering Outstanding Ph.D. Research Award, Feb 2001, The University of Alabama.  
University of Alabama National Alumni Association Graduate School Scholarship, Sep 1999.  
Graduate Research Assistantship, Aug 1999 - Aug 2002, The University of Alabama.  
Procter & Gamble Scholarship, Jan 1998, Tianjin University, Tianjin, China.  
Ding Xu-Huai Scholarship, May 1995, Tianjin University, Tianjin, China.  
Outstanding Student Scholarship, 1992 - 1998, Tianjin University, Tianjin, China.

### PUBLICATIONS

1. X. Huang and C.S. Brazel, Review: On the importance and mechanisms of burst release in polymeric matrix-controlled drug delivery, *Journal of Controlled Release*, 73 (2001), 121-136.
2. X. Huang and C.S. Brazel, Analysis of burst release in PVA gels, *Chemical Engineering Communications*, 2002, in press.
3. X. Huang, C.S. Brazel, Minimization of initial burst in poly(vinyl alcohol) hydrogels by surface extraction and surface preferential crosslinking, accepted to publish by *International Journal of Pharmaceutics*, 2002.
4. C.S. Brazel and X. Huang, "The cost of optimal drug delivery: Reducing and preventing the burst effect in matrix systems", submitted to S. Svenson, ed. *Carrier Based Drug Delivery*, ACS Symposium Series, June 2002.
5. X. Huang, C.S. Brazel, "Understanding the burst effect: Release in PVA hydrogel systems, Improvements in modeling, and Approaches to preventing burst," submitted to *Proceed. Int. Symp. Control. Rel. Bioact. Mater.*, 29 (2002)
6. C.S. Brazel, A.N. Roberts, and X. Huang, Surface-preferential crosslinking in hydrogels to minimize the burst effect and design tunable lag times for drug delivery, submitted to *IEEE Trans. Biomed. Eng.*, 2002.
7. X. Zhao, X. Huang, H. Ma, S. Fan, and Z. Yu, Circulation time distribution and structured mixing model of bioreactors, *Huagong Xuebao/Journal of Chemical Industry and Engineering (China)*, 50 (1999), 326-336.
8. X. Zhao, H. Ma, X. Huang, R. Ban, Influence of N-source concentration on *Xanthan* fed-batch fermentation, *Huagong Xuebao/Journal of Chemical Industry and Engineering (China)*, 48 (1997) 247-251.
9. X. Huang, X. Zhao, H. Ma and S. Fan, Measurement of circulation time distribution and structured mixing model of stirred bioreactor, *Proceedings of Asia-Pacific Biochemical Engineering conference*, Beijing, China, 1997.
10. H. Ma, X. Huang, X. Zhao, Application of artificial neural network in estimation of state of fermentation process, *Proceedings of the Seventy National Conference on Biochemical Engineering*, Qingdao, China, 1997.
11. X. Zhao, H. Ma, R. Ban, and X. Huang, Influence of micro-environments on *Xanthan* fermentation in stirred bioreactor, *Proceedings of the Seventh National Conference on Biochemical Engineering*, Qingdao, China, 1997.
12. H. Ma, X. Huang, X. Zhao, and Y. Zhao, Parameter estimation of kinetic models of *Xanthan* fermentation, *Proceedings of the 8th National Conference of Chemical Engineering*, Tianjin, China, 1996.
13. C.S. Brazel A.M. Thornton and X. Huang, Dependence of burst release on pH of medium for release of streptokinase from poly(N,N-diethylaminoethyl methacrylate-co-2-hydroxyethyl methacrylate) hydrogels, in preparation, to be submitted to *Journal of Biomedical Materials Research*.
14. X. Huang and C.S. Brazel, Modeling of burst release from hydrogels based on a diffusion-convection model, in preparation, 2002.



## PRESENTATIONS

1. A. Roberts, **C.S. Brazel** and X. Huang, Surface-preferential crosslinking in hydrogels to minimize the burst effect and design tunable lag times for drug delivery, to be presented at the 2nd Joint EMBS-BMES Conference, Houston, TX, Oct 2002.
2. **C.S. Brazel** and X. Huang, Development of a convection-diffusion model to account for the burst effect in hydrogel systems, to be presented at 2002 AIChE Annual Meeting, Indianapolis, IN, Nov 2002.
3. X. Huang and **C.S. Brazel**, Understanding the burst effect: Release in PVA hydrogel systems, improvements in modeling, and approaches to preventing burst, 29th Annual Meeting of Controlled release society, Seoul, Korea, Jul 2002.
4. **C.S. Brazel** and X. Huang, The cost of optimal drug delivery: Reducing and preventing the burst effect in matrix systems, invited by ACS 2002 Annual Meeting, Orlando, Florida, Apr 2002.
5. **X. Huang** and C.S. Brazel, Modeling of burst release of small molecular weight solutes from hydrogels based on a diffusion-convection model coupled with surface desorption, presented at AIChE 2001 Annual Meeting, Reno, Nevada, Nov, 2001.
6. **X. Huang**, B. Chestang and C.S. Brazel, On the minimization of the burst release of small molecular weight solutes from PVA hydrogels: surface extraction and surface-preferential crosslinking techniques, presented at AIChE 2001 Annual Meeting, Reno, Nevada, Nov, 2001.
7. **X. Huang** and C.S. Brazel, An investigation of burst release of low molecular weight drugs from poly(vinyl alcohol) hydrogels, presented at AIChE 2000 Annual Meeting, Los Angeles, California, Nov 12-17, 2000.
8. **X. Huang** and C.S. Brazel, Analysis of burst release of small molecular weight drugs from poly(vinyl alcohol) hydrogels, presented at 4th National Graduated Research Polymer Conference, Hattiesburg, Mississippi, Jun 18-21, 2000.
9. **X. Zhao**, H. Ma, and X. Huang, Investigation of the effect of the initial nitrogen concentration on Xanthan fermentation using the rate variable method, 1996 Asian-pacific Chemical Reaction Engineering Forum, Beijing, China, 1996.

## Eden June

### Objective

To obtain a summer internship with a consulting firm in an engineering/planning capacity.

### Experience

May 2003-present      **Apalachee Regional Planning Council**      Tallahassee, FL  
***Planning Intern—Emergency Management***

- Acted as a technical and planning consultant to rural local governments.
- Performed risk assessments, devised new mitigation strategies, and solicited public commentary to update and create Local Mitigation Strategies for 3 North Florida counties.
- Saved Council \$30,000+ by performing benefit-cost analysis of mitigation projects and \$3000 by constructing a web page.

Jan.-Aug. 2003      **Florida State University/Conflict Resolution Consortium**      Tallahassee, FL  
***Graduate Research Assistant***

- Designed and conducted research on the effectiveness of the Florida Environmental Litigation Reform Act (ELRA) Program.
- Authored an ELRA program efficiency report for the Florida State Legislature.

Jan.-May 2001      **Georgia Public Interest Research Group**      Atlanta, GA  
***Research Associate***

- Conducted research/formulated policy recommendations on two projects affecting the water of Georgia and over 3 million metro-Atlanta residents.
- Expanded research tools to include hydrological/geographical analysis with GIS.
- Co-authored a policy recommendation to the Georgia EPD and EPA about TMDL implementation for the region.

### Education

2003-Present      **Florida State University**      Tallahassee, FL

- M.S.P., Urban and Regional Planning. Anticipated graduation date: December 2004.
- Specialization: Environmental Planning and Natural Resource Management.

1997-2002      **Georgia Institute of Technology**      Atlanta, GA

- B.S., Chemical Engineering.
- Minor in Public Policy with Environmental Focus.
- Attended the Estudio Internacional Sempere Language School in Madrid, Spain.

### Qualifications

**Certifications:** Engineer-in-Training (EIT), GIS Arc Info, Spatial Analyst, Model Builder  
**Computer Skills:** Operating Systems: MS-DOS, MS Windows (all versions), Mac O/S; Programming Languages: HTML, JAVA; Software Tools: Word, Excel, Access, PowerPoint, Mitigation 20/20; extensive web design experience  
**Professional Affiliations:** Society of Women Engineers, American Planning Association

### Professional Interests

Environmental impact assessment, international sustainability, water resource management

## Sara Eloise Kelcher

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2464 Highland Rd.  
Upland, CA 91784

(909) 529-6018  
[saraatucr@hotmail.com](mailto:saraatucr@hotmail.com)

**Objective:** To obtain valuable work experience within the field of Chemical Engineering.

**Education:** **University of California, Riverside.**  
BS in Chemical Engineering, June 2004. Cumulative college GPA: 3.919.

**Relative courses:** Chemical Process Analysis, Fluid Mechanics, Mass Transfer, Thermodynamics, Numerical Methods, Kinetics, Analytical Lab experience, environmental engineering courses, Organic Chemistry, Separations, Catalysis, Design.

**Experience:**

Summer 2003 **Alliance for Science and Technology Research in America (ASTRA), Washington DC**  
Responsibilities: **Research Intern** for Budgetary analysis, Technical Writing, Legislative lobbying

Summer 2001 and Summer 2002 **Sanitations District, LA County.**  
Responsibilities: **Student Lab Technician** working on Suspended Solids Test, Total Dissolved Solids, Water Hardness, Sample Receiving, Solids analysis

2001-present **Learning Center, UCR.**  
Responsibilities: Tutor students in Calculus, Pre-Calculus, Computer Science and Upper division math

**Computer Skills:** Programming experience in C++ and MATLAB. Experienced using Excel, Word, PowerPoint and Publisher.

**Languages:** Conversational Spanish.

**Extra Curricular Activities:**

2003-present **Epsilon Eta Sigma:** Engineering honor society (soon to be Tau Beta Pi), *Treasurer*. Service organization with mentoring program.

2002-present **Society of Women Engineers**, national and student member. *Activities chair* of the UCR Student section.

**AIChE** (American Institute of Chemical Engineers), national and student member. *President* of UCR Student Section.

2001-present **University of California, Riverside Engineering Ambassador.**  
Responsibilities: Conduct school tours, participate at question and answer orientations, attend various engineering activities.

**References:** Available upon Request

# CHRISTOPHER SCOTT KNIGHT

539 Hinson Drive, Thomasville, AL 36784

Home: (334)636-2310; Cell: (888)347-5091; Email: [uachemeng@yahoo.com](mailto:uachemeng@yahoo.com)

## EDUCATION

**Bachelor of Science Degree in Chemical Engineering**

**The University of Alabama, Tuscaloosa, AL**

Graduation date: May 2004

**Cumulative GPA: 3.54/4.0, Chemical Engineering GPA: 3.67/4.0**

Scheduled to take the Fundamentals of Engineering exam April 2004

### Relevant courses taken:

Mass and energy balance, separation processes, chemical reactor design, fluid mechanics, heat transfer

**Summer Lab 2003:** emphasis on operation of distillation column, double-effect evaporator, shell-and-tube heat exchangers, and adsorption column where all operations included start-up, steady-state, and shut-down procedures

**Senior design class:** a 250 mile natural gas pipeline was designed and an economic analysis was performed on the pipeline

**The University of West Alabama, Livingston, AL GPA: 3.91/4.0**

Core curriculum classes taken, no degree obtained

*\*Worked full time to support self and family while attending school full time and commuting 210 miles per day*

## ACHIEVEMENTS/ ORGANIZATIONS

Mark and Dixie Cooper Engineering Scholarship

Dean's List/President's List: 6 semesters

Phi Eta Sigma Honor Society

American Institute of Chemical Engineers

## WORK EXPERIENCE

**Self-employed** in carpenter/construction work, Thomasville, AL May 2001-present

Direct interaction with customers, submitting estimates and bills, quality control assessment, coordinating multiple jobs

**Thomasville Volunteer Fire Department**, Thomasville, AL October 1991-present

**Battalion Chief:** January 2003-present

Coordinate rescue and fire suppression efforts in dynamic emergency operations, develop and implement training and safety programs, conduct building and safety inspections, conduct personnel, equipment, training and performance reviews, conduct fire safety workshops for civic and children's organizations

**Captain:** January 1996-December 1998

Managed specific fire and rescue operations, implemented training programs, conducted performance reviews, maintained optimum operating condition of tower truck

**Lieutenant:** January 1994-December 1995

Entry team leader, extrication leader

**Firefighter of the Year:** 1994; **Competition Team member:** May 1994-August 2003;

**Hazardous Material Technician:** July 1992-july 1993

**Knight Construction Company**, Thomasville, AL May 1990-May 2001

**Supervisor** January 1994-May 2001

Signed time cards, scheduled jobs and employees, employee performance reviews, scheduled equipment maintenance, interviewed potential employees, two years experience in construction work in chemical and paper industries

## COMPUTER SKILLS

Microsoft Windows 95,98,2000, XP, Microsoft Excel, Word, PowerPoint, Chemcad, Polymath

## Jair Lizarazo, MSChE

1428 Southern Gardens Dr.  
Tuscaloosa, AL 35404-2038  
Phone (205) 758 7423  
[jair.lizarazo@ua.edu](mailto:jair.lizarazo@ua.edu)

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### SUMMARY

Ph.D. in Chemical Engineering, Full bilingual (English – Spanish), Computer Programming, Supercritical Fluids, Natural Products, Catalyst, Hydrogen Production, Petrochemical, Pulp and Paper, Quality Control.

### EDUCATION

**The University of Alabama, Tuscaloosa, AL** **Exp Grad Date: May 2004**  
Ph.D. in Chemical Engineering, GPA: 3.7/4.0  
Thesis: *"Coke formation on Ceria supported precious metal catalyst for production of hydrogen."*

**University of Puerto Rico at Mayagüez, Mayagüez, PR** **Grad Date: Jun 2001**  
MS in Chemical Engineering, July 2000, GPA: 4.0/4.0  
Thesis: *"Evaluation of an Energy Production Alternative for Disposal of Used Cooking Oil."*

**Universidad del Valle, Cali, Colombia,** **Grad Date: Nov 1997**  
BS in Chemical Engineering, Nov. 1997, GPA: 4.12/5.00  
Thesis: *"Supercritical Fluid Extraction Modeling of Chamomile's Essential Oils."*

### WORKING EXPERIENCE

**Research Assistant, University of Alabama, Tuscaloosa, AL** **Jan 2001 - Present**  
Responsible for designing, purchasing, installing and evaluating equipment used on my research project.

**Teaching Assistant, University of Alabama in Huntsville, Huntsville, AL** **Aug 2000 - Dec 2001**  
Repaired, installed and evaluated laboratory equipment for the Unit Operations Laboratory.

**Research Assistant, University of Puerto Rico at Mayagüez, Mayagüez, PR** **Aug 1997 - Jul 2000**  
Laboratory Supervisor. Designed, purchased, installed and evaluated equipments used in the Electrochemistry and Metal Crystallization Laboratories. Projects included: fuel cells, oil steam reforming, steam explosion, metal particulate growth and kinetic precipitation process, electrode deposition, and the network system interconnection used in these facilities. Supervised of undergraduate students.

**Teaching Assistant, University of Puerto Rico at Mayagüez, Mayagüez, PR** **Aug 1997 - May 1999**  
Class lectures, graded report/tests for the Mass and Energy Balance Course.

**Universidad Cooperativa de Colombia, Cali, Colombia** **Jan 1997 - Jun 1997**  
Computer Science Professor. Courses: Advanced programming in Visual Basic, Database Design.

**Processing Plastics Enterprise, Cali, Colombia** **Aug 1996 - May 1997**  
Designed and programmed a system used to control and plan the production with Stock Management Option. Installs this system permitted quick identification of factors leading to time, production and quality loss in plastic products that were used for economic analyses at the Top Manager Level.

**Colombian Petroleum Enterprise, Barrancabermeja, Colombia** **Jan 1995 - Jul 1995**  
Engineering Department Assistant. Programmed energy consumption index calculations for distillation units. Established statistical methods and tools needed to identify the critical factors on Energy Saving.

**Paper Producer Enterprise (PROPAL), Caloto, Colombia** **Aug 1994 - Dec 1994**  
Identified factors leading to time, production and quality losses in paper machines. Develops of statistical routine for paper machine variables.

## SKILLS

Laboratory experience and chemistry knowledge: GC-MS/TCD/HID, HPLC, TLC, X-Ray, SPX, TEM, SEM, BET, Stop Fast Reactor, calorimetric, distillation, electrogravimetry, membrane separations, liquid-liquid extraction, SPME, supercritical fluid extraction, cyclodextrine encapsulation.

Programming Languages: C++, Borland Pascal, JAVA, Visual dBase, MS Access, MS Excel, Visual Basic, G for LabView.

Languages: Spanish, English and reading comprehension of French.

Quick learner. Excellent interpersonal skills.

## PRESENTATIONS / PUBLICATIONS

- |   |            |
|---|------------|
| 225th ACS National Meeting, New Orleans, LA<br>"Oxidative Steam Reforming of Heavier Hydrocarbon Fuel."   | Mar. 2003  |
| VI Environmental Symposium, Mayagüez, PR<br>"Photo Catalytic Detoxification of Metal-Organic Polluted Waters: Reduction of Gold in an Ultrasonic Medium." (1st Prize)   | Dec. 1999  |
| AIChE's 1999 Annual Meeting, Dallas, TX,<br>"Evaluation of an Energy Production Alternative for the Disposal of Used Cooking Oil Generated by Fast Food Restaurants." (3rd Prize)                                 | Nov. 1999  |
| XVIII Interamerican Congress of Chemical Engineering, San Juan, PR<br>"Fuel Cells Applications In Puerto Rico, An Environmentally Friendly Technology."   | Dec. 1998  |
| IV Italian Conference on Supercritical Fluids and their Applications, Capri, Italy<br>"An Experimental Design for the Supercritical Fluid Extraction of Fragrances from Herbaceous Matrices and Tropical Fruits." | Sept. 1997 |
| V Colombian Congress of Phitochemistry, Medellín, Colombia<br>"Supercritical Fluid Extraction of Essential Oil from Colombian Chamomile Flower."  | Aug. 1997  |

## HONORS

- |   |           |
|---|-----------|
| Laureate Undergraduate Research Thesis, University of Valle, Cali, Colombia | Nov. 1997 |
|---|-----------|

# G. SEAN MADDOX

1401 University Boulevard, Apartment E-11  
Kingsport, Tennessee 37660  
205.310.6595  
maddoxsean@hotmail.com

|                 |  |   |
|-----------------|--|---|
| Education       | <b>Master of Art in Banking and Finance</b><br>May 2003<br><b>The University of Alabama</b><br><b>Concentration: Risk Strategy</b><br><b>GPA: 4.0</b>  | <b>Bachelor of Science in Chemical Engineering</b><br>May 2002<br><b>The University of Alabama</b><br><b>Minor: Finance</b><br><b>Cumulative GPA: 3.75</b><br><b>Minor GPA: 4.0</b> |
| Designations    | <b>Level II Candidate in the CFA program</b>   |   |
| Experience      | <b>Business Financial Analyst</b> August 2003 - Present<br><b>Independent Contractor with Eastman Chemical Company</b><br>Reconstruct and adjust financial statements for special projects. Prepare weekly sales and earnings, cost, and other reports. Develop financial models to help identify value-adding activities. Perform adhoc financial analyses. Assist with routine business forecasting.           |   |
|                 | <b>Business Finance Graduate Teaching Assistant</b> August 2002 - Present<br><b>The University of Alabama</b><br>Reinforced classroom concepts by working numerical examples in a lab setting. Met with students on an individual basis to clarify misunderstandings. Helped administer exams. Maintained grade records.   |   |
|                 | <b>Financial Analyst Intern</b> May 2002 - July 2002<br><b>Eastman Chemical Company, Kingsport, TN</b><br>Valued a lease renewal versus buy scenario identifying sixty million dollars of savings. Developed the framework of a financial analysis for a capital project needed to satisfy new environmental regulations. Researched and updated key economic indicator data used to support financial analyses. |   |
| Computer Skills | C++ MS-Office Windows Maple<br>VBA Internet Explorer Matlab Minitab  |   |
| Leadership      | President and Treasurer of the Alabama Society of Professional Engineers<br>Ambassador for the College of Engineering<br>American Institute of Chemical Engineers<br>Kids' Klub<br>Treasurer of the Paty Residence Hall Council<br>Small Group Leader in a Student Ministry<br>Toastmasters  |   |
| Honors          | Bedsole Scholar<br>Dean's List<br>Elliot Society<br>Golden Key International Honour Society<br>Graduate Council Fellow<br>Graduated Magna Cum Laude  | Honors Program<br>Omega Chi Epsilon<br>Presidential Scholar<br>President's List<br>Tau Beta Pi  |
| Interests       | Cooking, fishing, hunting, hiking and camping, canoeing, fitness, photography  |   |

**Sonya Mazumdar**  
mazums@rpi.edu

**Permanent Address:**  
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Old Bridge, NJ 08857  
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**Current Address:**  
Church II 3001  
1999 Burdett Avenue  
Troy, NY 12180  
(518) 276-4706

- Objective** To obtain an internship in chemical engineering to explore opportunities in the field.
- Education** Rensselaer Polytechnic Institute, Troy, NY 2001 - Present  
B.S. Chemical Engineering, Class of 2005
- Minor in Chemistry
  - Concentration in Technological Entrepreneurship
- Current GPA: 3.37/4.0 *Dean's List*
- Work Experience** Engelhard Corporation, Iselin, NJ May – August 2003
- Strategic Technologies – Characterization Lab Intern – Prepared ceramic and metal samples for microscopy, prepared materials for analysis by x-ray diffraction, utilized computer software to identify composition of different substances; job entailed application of different chemistry and physics principles, organization, and responsibility.
- Rensselaer Polytechnic Institute, Troy, NY September 2002 – Present
- Office of Residence Life - Work-Study Employee - Answered phone calls, provided assistance to students and office directors, and performed other office duties; job entailed organization and communication.
- Community YMCA Camp Arrowhead, Marlboro, NJ June – August 2002
- Senior Counselor – Supervised children on a daily basis; organized and assisted specialists with daily activities; job entailed effective teamwork, communication, and responsibility
- Relevant Courses**
- Entropy, Energy, and Equilibrium
  - Introduction to Differential Equations
  - Modeling of Analysis and Uncertainty
  - Computer Science I
- Computer Skills**
- **Operating Systems:** Microsoft Windows 98/2000/XP
  - **Software:** Microsoft Word 98/2000/XP, Microsoft Excel 98/2000/XP, Microsoft PowerPoint 98/2000/XP, Microsoft Visual C++ 6.0, MDI Jade 5.0, Minitab, Maple 7, LabView 6i, TestView, SolidWorks 2001 Plus
- Extracurricular Activities**
- Resident Assistant 2003-2004
  - Professional Leadership Program
  - Society of Women Engineers – Membership Coordinator
  - American Institute of Chemical Engineers
  - Indian Students Association
  - Tutor for the RPI Advising and Learning Assistance Center
  - Cross-Cultural Communication Leadership
- Awards/Honors**
- Rensselaer Medal Award and Scholarship
  - Rensselaer Alumni Scholarship
  - The National Dean's List (2001-2003)



**Melvin J. McCann**  
7032 Watchman Circle  
Montgomery, AL 36116  
(334)-356-0054  
Email: [mccan010@bama.ua.edu](mailto:mccan010@bama.ua.edu)

Dear Sir/Madam:

I recently graduated from the University of Alabama with a Bachelor of Science in Chemical Engineering. I am seeking entry-level employment as a Chemical/Process Engineer, Chemist, Mathematician, Analyst or Lab Technician. Although a recent graduate, I am not a typical new graduate. I have acquired excellent leadership skills and effective problem-solving methods through my experiences in a student intern program.

As a process development co-op, I worked in the Business Support Laboratory at Ciba Specialty Chemicals Inc. in McIntosh, AL. I assisted with the revision of procedures for the laboratory scale-up of many products and the practical application of the projects. I also participated in making key decisions on several individual experiments that were assigned to me and occasionally I was responsible for supervising the laboratory. I also was the leader of a chemical process design project in which I was responsible for assuring that the team met important deadlines.

My experiences have made me keenly aware of the value of commitment and dedication to assigned tasks and the corporate business objective. For your review, I have enclosed a copy of my resume and I am available to speak with you at your convenience about any entry-level positions. Thank you for your kind consideration.

Sincerely,

Melvin J. McCann

Enclosure: Resumé

**Melvin J. McCann**  
7032 Watchman Circle  
Montgomery, AL 36116  
(334)-356-0054

Email: [mccan010@bama.ua.edu](mailto:mccan010@bama.ua.edu)

**OBJECTIVE:** To obtain entry-level employment that will expand my knowledge of chemical engineering and technical data requirements.

## **EDUCATION**

December 16, 2002

The University of Alabama

Tuscaloosa, AL

**Bachelor of Science, Chemical Engineering** (Concentration: Mathematics)

Design Project: *Witten Synthesis of Dimethyl-terephthalate*

## **RELEVANT COURSEWORK**

|                                     |                               |
|-------------------------------------|-------------------------------|
| Process Calculations                | Transport Phenomena           |
| Chemical Engineering Thermodynamics | Process Dynamics and Controls |
| Fluid Flow Operations               | Statics                       |
| Heat Transfer                       | Chemical Process Design       |
| Mass Transfer                       | Chemical Health and Safety    |
| Chemical Reactor Design             | Engineering Materials         |
| Corrosion Science and Engineering   | Organic Chemistry             |
| Unit Operations Laboratory          | Discrete Mathematics          |
| Analytical Chemistry                | Linear Algebra                |
| Calculus                            | Differential Equations        |

## **EXPERIENCE**

August-December 2000

Ciba Specialty Chemicals Inc.

McIntosh, AL

**Process Development Co-op**, Process Development Business Support Lab

- Worked as an intern for the Business Support Lab located in the Additives Process Development Department
- Worked as an assistant chemist on the scale-up of products for multiple processes
- Used 30 liter batch chemical reactors and pressure reactors
- Worked with a team of chemists and chemical engineers on several projects involving Pilot Plant operations
- Responsible for performing inspections on eye-washes and safety showers
- Responsible for developing improved procedures to more efficiently carry out the scale-up of many products
- Assisted in supervising the Business Support Lab and provided support to fellow chemists and chemical engineers
- Worked on several individual experiments in which eventual scale-ups were performed based on my findings
- Responsible for the documentation and proper disposal of discarded waste solvents
- Completed fire extinguisher training and PPE training

January 2000-May 2000

Ciba Specialty Chemicals Inc.

McIntosh, AL

***Environmental Operations Co-op***, Environmental Health & Safety Department

- Worked as an intern for the Environmental Health & Safety Lab located in the Additives Environmental Operations Department
- Worked on a team of environmental scientists providing data that determined whether or not production at the plant drastically affected the community
- Calibrated instruments such as pH meters and Dissolved Oxygen meters
- Gathered samples from specific units and landmarks around the plant site using laboratory equipment
- Performed tests such as TSS (Total Suspended Solids) and BOD (Biochemical Oxygen Demand) on samples
- Followed governmental procedures for providing results from sample testing
- Completed the extensive 40 hour Hazardous Waste Operations Training at the University of South Alabama's Brookley Field campus

August 1997 to August 1999

Tuscaloosa, AL

***Stockroom Clerk***, The University of Alabama Department of Chemistry

- Filled orders at the stockroom window for laboratories
- Filled orders at the stockroom window for students
- Helped determine items that need to be restocked
- Assisted in processing orders for supplies
- Refilled and sold chemicals and solvents such as Acetone

## **HONORS & ACTIVITIES**

- University of Alabama's National Alumni Association
- Cooperative Education Program Graduate
- Capstone Engineering Society
- American Institute of Chemical Engineers
- Intramural Sports: Basketball and Flag Football
- Intramural Basketball Referee
- J.G.G. Frost Chemical Engineering Scholarship recipient

**References available upon request**

## Michelle McClellan

mcclem@rpi.edu

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1999 Burdett Avenue  
Troy, NY 12180  
(518) 276-7553

**Permanent Address:**  
20 Terrance Avenue  
Clinton, MA 01510  
(978) 368-7534

### Objective

An internship in Chemical Engineering that will help me to explore the opportunities in this field.

### Education

**Rensselaer Polytechnic Institute, Troy, NY** 2001 - Present  
B.S. Chemical Engineering, Class of 2005  
➤ Minor Chemistry  
Current GPA: 2.41

### Work Experience

**Office of Residence Life at RPI, Troy, NY** August 2002 – Present  
➤ Resident Assistant in a coed residence hall for upperclassmen

**Marlboro Country Club, Marlboro, MA** May 2002 – August 2002  
➤ Dining Room and Function Server - Provided customer service; maintained the dining room as well as the cook space; focused on teamwork, organization, and communication in a busy environment

**JC Penney, Marlboro, MA** August 1999 – January 2002  
➤ Customer Service Representative – Provided customer service; replenished stock; kept maintenance of store

**Rockbestos Surprenant Cable Co. Clinton, MA** June 2000 – August 2000  
➤ MIS Summer Intern – Updated and maintained computer systems; installed computer hardware and software; instructed employees on how to use new software; implemented a help desk; focused on technical skills as well as strong employee interaction

### Relevant Courses

- Fluid Mechanics and Heat Transfer; Energy, Entropy, Equilibrium
- Material, Energy, and Entropy Balances; Modern Techniques in Chemistry
- Organic Chemistry; Chemistry of Materials 1 & 2
- Calculus 1 & 2; Differential Equations
- Physics; Computer Science
- Modeling and Analysis of Uncertainty
- Introduction to Engineering Analysis, Engineering Processes
- Engineering Graphics and Computer Aided Design

### Computer Skills

- **Platforms:** Microsoft Windows 95/98/2000/XP; Mac OSX
- **Operating Software:** Microsoft Word 95/98/2000/XP; Microsoft Excel 95/98/2000/XP; Microsoft PowerPoint 95/ 98/2000/XP; Maple 8; LabView 6i; TestView; SolidWorks 2001 Plus; AutoCad; MiniTab
- **Programming Languages:** C++, HTML, XHTML

### Extracurricular Activities

- American Institute of Chemical Engineers
- Society of Women Engineers; Women's Mentor Program
- Resident Assistant/Office of Residence Life
- Culinary Club – Secretary
- Mac User's Group

### References

- Available upon request

# John Bradley McKinney

## *Permanent Address*

205 Royal Liberty Road  
Blountsville, Al 35031  
205-429-5355

## *Local Address*

900 Hargrove Road Apt 227  
Tuscaloosa, Al 35401  
205-394-1100

[jbradmckinney@yahoo.com](mailto:jbradmckinney@yahoo.com)

## *Strengths*

Hardworking, responsible, personable, and able to work well with others, **willing to travel and relocate**

## *Education*

Bachelor of Science in Chemical Engineering (expected December 2003)  
The University of Alabama, Tuscaloosa, Al  
G.P.A.: 3.45/4.0  
Coursework– Thermodynamics, Fluid Flow, Heat Transfer, Separation Processes, Chemical Reaction Engineering, Design of Chemical Processes

## *Experience*

2/02 – Present

Undergraduate Biomedical Researcher, “**Magnetically Controlled Drug Delivery using Magnetic Dispersions Embedded in Polymer Networks**”, The University of Alabama, Department of Chemical Engineering

1/03 – Present

Construction Worker, Allan Cunningham Construction, Northport, Al

## *Publications*

Carroll, K.S., **J.B. McKinney**, D.T. Johnson and C.S. Brazel, “Development of Magnetothermal Responsive Systems for Tumor Treatment,” Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 30 (2003), submitted.

## *Awards and Activities*

**3<sup>rd</sup> Place, Undergraduate Poster Competition – Particle Technology Division, National AIChE Conference (2002), Indianapolis, IN**

John Key McKinley Creativity Award (2002)

Robinson Chemical Engineering Scholarship (2001-2002)

**1<sup>st</sup> Place- BamaBot Engineering Competition (University of Alabama, 2002)**

National American Institute of Chemical Engineers-Gold Member (2002-2003)

American Institute of Chemical Engineers-University of Alabama Chapter (2002)

AIChE Fundraising Chairman (2003)

## *Computer Skills*

Microsoft Windows, Internet Explorer, Word, Excel, PowerPoint, PolyMath, ChemCad, C++, FORTRAN 90

## Christopher L. Osborne

Current Address:  
2501-15<sup>th</sup> Street East  
Tuscaloosa, Alabama 35404  
(205) 553-5306  
osbor002@bama.ua.edu

Permanent Address:  
536 Overlook Road  
Fultondale, Alabama 35068  
(205) 841-3149

- Objective** To obtain an entry-level position in the field of Chemical Engineering.
- Education** **Bachelor of Science: Chemical Engineering**  
The University of Alabama, Tuscaloosa, Alabama  
Expected Graduation: December 2002  
Cumulative GPA 2.6/4.0 (based on a plus/minus system)  
*Design Project: Optimal design of a single chemical process*  
Unit Operations Lab  
Business Certificate
- Experience** **Engineering Intern**, Summer 2002  
American Cast Iron Pipe Company, Engineering Department, Steel Melting,  
Birmingham, Alabama.  
Aided Metallurgical Engineer in melting process. Properly gathered and  
weighed various materials which were used in the melting process.
- Engineering Intern**, September 1999-December 1999  
Mercedes-Benz U.S. International, Inc., Environmental Engineering  
Department, Vance, Alabama.  
Accounted for all chemical products entering plant. Recorded where  
chemicals were located in the plant and assured that all chemicals were  
properly labeled and coded. Inspected the entire facility for improperly stored  
chemicals. Performed a weekly BMP inspection of the storm water drainage  
system.
- Laborer**, Summer 1997, Summer 1998  
Jefferson County, Environment Department of Wastewater Treatment  
Homewood, Alabama  
Assisted operator with collecting samples.
- Maintenance Assistant**, August 2002  
University Commons Apartments, Tuscaloosa, Alabama.  
Assisted Maintenance workers. Dealt with tenants.
- Computer Skills** MS Office, AutoCad, Windows, Fortran
- Activities** American Institute of Chemical Engineers, National Society of Black  
Engineers, Sunday School Supervisor
- References** Available upon request

# **DHARMESH BALVANTBHAI PATEL**

1707 Bienville Street Tuscaloosa, AL 35406  
(205) 345-3666      [Patel008@bama.ua.edu](mailto:Patel008@bama.ua.edu)

## **OBJECTIVE**

To obtain an entry level chemical engineering position with focus on process engineering at a chemical or pharmaceutical company.

## **EDUCATION**

**Bachelor of Science: Chemical Engineering**

**Minors: Mathematics and Chemistry**

The University of Alabama, Tuscaloosa, Alabama

Expected Graduation: May 2004

Cumulative GPA: 3.111/4.00      Professional GPA: 3.136/4.00

## **EXPERIENCE**

**Engineering Cooperative Education, Research Engineer**, January 2001 – May 2001

Kimberly Clark Corporation, Absorbent Technologies, Neenah, Wisconsin

Responsible for helping fellow researchers to better understand mass flow separation of particles in storage hoppers. Responsible for conducting first round testing on newly acquired shear-testing equipment. Wrote Technical Report, and presented all findings in final oral presentation to department and management.

**Laborer**, May 1998 - August 1998

VIP Incorporated, Birmingham, Alabama

Worked inside chemical boilers and storage tanks cleaning the walls of buildup. Responsible for helping in the testing of wall integrity for cracks in boilers and tanks to insure proper safety requirements.

## **RELEVANT COURSE WORK**

**Summer Lab Team Member**, May 2003-June 2003

The University of Alabama, Tuscaloosa, AL

Participated in five-week lab consisting of operation of Distillation Column, Evaporator, Heat Exchangers, Adsorption Column, and Particle Drop Column. Provided experience in team leadership and team unity as well as technical writing skills and time management.

## **COMPUTER SKILLS**

**Languages – FORTRAN**

**Applications –** Microsoft Excel, Word, PowerPoint, Outlook, Publisher, Navigator, Internet Explorer, ChemCad, Matlab, AutoCAD

**Operating Systems –** Microsoft 98, Microsoft 2000, Microsoft Millennium, Microsoft XP

**Familiar with –** Microsoft Access, C++, MS-DOS, MathCAD

## **HONORS AND ACHIEVEMENTS**

American Institute of Chemical Engineers (AIChE), AIChE Peer Mentor, National Honor Society, Gamma Beta Phi, Salvation Army-Volunteer, Dean's List, University of Alabama Engineering Scholarships

## **REFERENCES AVAILABLE UPON REQUEST**

## ARCESIO PERDOMO

Current Address:  
410 Grace Street  
Apt. 327- Bldg. 6  
Tuscaloosa, Alabama 35401  
(205) 758-8426  
[arce\\_perdomo@hotmail.com](mailto:arce_perdomo@hotmail.com)

Permanent Address:  
318 Old Farm Road  
Montgomery, Alabama, 36111  
(334) 832-9603

**OBJECTIVE** To obtain a position which allow me to grow personally and professionally.

**EDUCATION** **Bachelor of Science:** Chemical Engineer  
University of Alabama, Tuscaloosa, AL  
Minor: Business  
Expected Graduation: December 2002  
Cumulative GPA: 3.39/4.00

Los Andes University, Bogota, Colombia  
Chemical Engineering course work

**STRENGTHS** Strong analytical, communication and technical skills  
Languages: Spanish, English

**COMPUTER SKILLS** MS Office, Windows, Microsoft Internet Explorer

**EXPERIENCE** Alabama International Trade Center, June-July 2001  
Contacted companies for business purposes in Central America

Quality Control – volunteer, May-June 2000  
F&E Sportswear, Montgomery, AL  
Supervised quality of screen prints.  
Approved merchandise to be delivered to customers  
Assisted accountant in the organization of checks, receipts and invoices  
Interacted with sales, peers, and customers

Assistant Manger (part time), June 1995-1996  
(Cellular Phone Dealer) Salon de las Comunicaciones, Bogota  
Assisted manager with sales, marketing decisions, and operations  
Assisted customers with merchandize selections and purchases

**ACTIVITIES** AICHE(American Institute of Chemical Engineers)  
Alabama Management Association, (elected Vice-president for spring2002)  
Model United Nations  
Golden Key International Honour Society  
OLA (Spanish Club)  
The National Dean's List  
ExxonMobil Scholarship

**REFERENCES** Available upon request



## **Andrea L. Pope**

3550 Watermelon Road #14D  
Northport, AL 35473

Home: (205) 391-9785  
alpope@hotmail.com

### **SUMMARY**

Chemical engineering senior with five co-op rotations covering batch, continuous, and product-finishing production areas. Effective communicator who operates with sense of urgency to solve complex and challenging business issues. Demonstrated engineering and interpersonal skills to lead product and process development for the automotive, consumer, and electronic product industries.

### **EXPERIENCE**

#### **GENERAL ELECTRIC PLASTICS, Mt. Vernon, IN**

**1999 – 2002**

##### **Crystalline® Resin - Sole Engineering Resource**

**1/02 - 6/02**

- ◆ Coordinated and led 2002 Resin Plant turnaround with no injuries, on schedule, and under budget
- ◆ Institutionalized "Turnaround Handbook" for future turnarounds and translated across all businesses on site
- ◆ Facilitated UPS Battery Backup System upgrade to ensure plant DCS/PLC reliability
- ◆ Identified resin grade change reduction opportunities using DMAIC process

##### **LEXAN® Resin - Owner for Solvent Recovery, solvent distillation process**

**5/01 – 8/01**

- ◆ Delivered \$135M annual steam savings by leading team in advanced flow control scheme using Six Sigma process
- ◆ Modified all plate and frame heat exchangers in coordination with behavior based safety team to improve safety aspects of maintenance
- ◆ Supported Nexus System implementation into Solvent Recovery Area for proactive process troubleshooting

##### **LEXAN® Finishing - Owner of five special effects polycarbonate extrusion lines**

**8/00 – 1/01**

- ◆ Increased annual productivity by \$70M through implementation of start-up recycle program
- ◆ Improved Apple color capability by 3σ with the introduction of a new colorant addition system
- ◆ Utilized 40M lbs. Apple Blue recycle material with post-blending technology

##### **ULTEM® Technology - Process / Production Engineer**

**1/00 – 5/00**

- ◆ Delivered \$160M annual savings through reduction of reboiler outages
- ◆ Installed pneumatic sample valve to eliminate safety risks associated with normal operation
- ◆ Developed action plan to ensure EPA compliance with bulk salt storage tank in ULTEM® Monomer

##### **Environmental, Health, and Safety - Environmental Engineer**

**5/99 – 8/99**

- ◆ Documented and validated site surge control vessel CFR compliance
- ◆ Verified LDAR compliance in BPA area

## **EDUCATION**

**Bachelor of Science: Chemical Engineering**

**Minor: Business**

**GPA: 3.3 / 4.0**

The University of Alabama, Tuscaloosa, Alabama

Expected Graduation: December 2003

## **LEADERSHIP**

### **2002 Crystalline Resin Plant Turnaround Planner/Scheduler**

- ◆ Created SURETRAK schedule and checklists for proper timing and accurate tracking of turnaround items
- ◆ Completed shift operations and day personnel schedules to optimize daily workforce and manpower
- ◆ Effectively utilized and managed 25 additional employees to reduce scheduled overtime

### **2000 GE Plastics Earth Day Chairperson**

- ◆ Managed entire project with \$17M budget and led 23 committee members
- ◆ Judged 2700 contest entries and organized luncheon for 25 contest winners

### **2001 / 2002 Presentation Committee Chairperson**

- ◆ Coordinated mini and formal presentation schedules for 19 co-ops across 16 operations

## **AWARDS**

2000 GE Coop of the Year  
Daimler Benz Award of Excellence  
2003 ADEM Environmental Scholarship  
2003 Chemical Engineering Scholarship  
UA ChE Letter of Environmental Recognition

## **TRAINING**

Six Sigma Green Belt Training  
Project Management Training  
Situational Leadership Training  
Firewatch and Confined Space Training

## **INTERESTS**

Reading, camping, auto racing, and cars  
Member AIChE / ACS / SWE

## **REFERENCES**

Available upon request

# Sabrina L. Rawlings

4877 Ilchester Road, Ellicott City MD 21043

Home: (410) 747-0507

sabrinal@umbc.edu

|                              |   |  |
|------------------------------|---|--|
| <b>OBJECTIVE</b>             | To secure an internship/flexible part-time job in chemical, biochemical, or biomedical engineering or in a related field that will enable me to gain experience while applying my interests and knowledge.  |  |
| <b>EDUCATION</b>             | University of Maryland Baltimore County, Baltimore, Maryland<br>Bachelor of Science in Chemical Engineering (Biochemical Emphasis), Expected Spring 2005<br>Minor in Mathematics, Considering pursuit of Masters Degree (through MS-BS program)<br>Grade Point Average: 3.26/4.0      Current Standing: Junior with 101.0 credits   |  |
| <b>Related Course Work</b>   | Principles of Chemistry I & II, Chemistry II Lab, Organic Chemistry I & II, Concepts of Biology, Genetics, Cell Biology, Multivariable Calculus, Linear Algebra, Differential Equations, Physics -- Mechanical and Electromagnetic Equivalents, Probability and Statistics, Chemical Engineering and Analysis, Ethical Issues in Science and Engineering, Technical Writing/Communications  |  |
| <b>Current Courses</b>       | Thermodynamics, Fluid Mechanics, Biochemistry, Computer Science, Elective   |  |
| <b>Project Work</b>          | <ul style="list-style-type: none"><li>• Introduction to Engineering, Fall 2001. Worked as a team of 5 to research, design, construct, and test a trebuchet. Performed cost and performance analysis.</li><li>• Ethical Issues in Science and Engineering, Fall 2002. Worked as a group of 3 to research and design a presentation on embryonic stem cell research. Highlighted the technical practices, stakeholders, and ethical concerns surrounding the issue. Analyzed facts using ethical theories and principles.</li><li>• Technical Writing, Spring 2003. Research paper and presentation on career-related topic.</li></ul>  |  |
| <b>Software</b>              | Windows, Microsoft Office Applications, Basic use of C programming language, UNIX/LINUX, MatLab, AutoCAD  |  |
| <b>WORK EXPERIENCE</b>       | Superfresh, Ellicott City, MD, 1999 – present <ul style="list-style-type: none"><li>• All positions demanded a high degree of dependability and motivation, also a cooperative and personable attitude</li><li>• Clerk, April 1999 – 2002<ul style="list-style-type: none"><li>◦ Worked part-time in the salad bar and floral department, Responsible for orders and inventory during absence of manager</li></ul></li><li>• Floral Department Manager, April 2002 – November 2003<ul style="list-style-type: none"><li>◦ Responsible for department orders, inventory, and evaluating cost/profit margins, Customer service and specialty orders were a major component, Relinquished position due to full time student status</li></ul></li><li>• Cashier, December 2002 – present<ul style="list-style-type: none"><li>◦ Responsible for managing register, efficiently serving customers with a smile, received perfect score on secret shopper survey (customer service evaluation)</li></ul></li><li>• Experience with store-wide price changes (through tags and electronic system)</li></ul> Farm Experience – Handling and raising large and small animals |  |
| <b>ACTIVITIES AND AWARDS</b> | <ul style="list-style-type: none"><li>• President, Panhellenic Association<ul style="list-style-type: none"><li>◦ Also Scholarship and Assistant Recruitment Chair</li><li>◦ Organized campus-wide philanthropy and social events, fundraisers</li></ul></li><li>• Vice President, Phi Mu Fraternity for Women, 2002 – 2003<ul style="list-style-type: none"><li>◦ Very involved member</li><li>◦ Sponsor events to raise money for Children's Miracle Network</li></ul></li><li>• Welcome Week/ Orientation Leader for new students</li><li>• Participant, LeaderShape Program</li><li>• Member, Society of Women Engineers</li><li>• Member, Women in Science and Engineering</li><li>• Recipient, Maryland Hope Scholarship</li><li>• Recipient, UMBC President Fellows Scholarship</li></ul>  |  |
| <b>REFERENCES</b>            | Available upon request  |  |

# **CATHLEEN MARIE RICHARDS**

2300 5<sup>th</sup> Avenue East Apt 64  
Tuscaloosa, AL 35401  
(205) 248-0586  
[catierichards@hotmail.com](mailto:catierichards@hotmail.com)

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## **HIGHER EDUCATION**

**August 2000 to December 2003**     **University of Alabama, Tuscaloosa, AL**  
Bachelor of Science: Chemical Engineering, Minor: General Business  
Major GPA 3.68/4.00; Overall GPA 3.40/4.00

## **WORK EXPERIENCE**

**July 2003 to Present**     **University of Alabama, Tuscaloosa, AL**  
Working on advanced chemistry research project involving membranes for arsenic adsorption from aqueous solutions through use of reaction kinetics, ultra-violet spectroscopy, atomic absorption, and inductively-coupled plasma spectroscopy for metal analysis.

**May to June 2003**     **Summer Unit Operations Laboratory, University of Alabama**  
Led and worked on team where proposals, final reports, and presentations were generated from five different experiments including an evaporator, distillation column, heat exchanger, adsorption column, and a fluids slot.

**June to August 2001**     **Intracorp, CIGNA Healthcare, Chattanooga, TN**  
Worked on Support Services team to obtain account information, organize account filing systems, fill supply requests, create and update spreadsheets, and assist with correspondence in case management patients.

**February to August 2000**     **Dr. Aiken's Dental Office, Chattanooga, TN**  
Served as secretary and receptionist for dental office.

## **COMPUTER SKILLS**

MS Office, Maple, Matlab 6.1, The Crane Companion (Design), Polymath 5.1, ChemCad 5.2.x

## **HONORS & VOLUNTEER ACTIVITIES**

The Gamma Beta Phi Society  
Student Government Association, Alabama/Auburn Better Relations Committee - Fall 2000-Spring 2001  
American Institute of Chemical Engineers, Engineering-Day - Fall 2000-present  
Society of Women Engineers, Around the World Dinner - Fall 2000-present  
Dean's List - 4 semesters  
Volunteer with Adopt-A-Mile program - Fall 2001  
Clarence Scott Endowed Chemical Engineering Scholarship - Fall 2001-present  
Volunteer at Community Kitchen - Fall 2000-Fall 2001  
National American Institute of Chemical Engineers, Gold member - Fall 2002-present  
Residence Hall Association, 14<sup>th</sup> Floor Representative - Fall 2000-Spring 2001

**ADRIA N. ROBERTS**  
66270 Highway 17 North  
Detroit, Alabama 35552  
(205) 273-4486  
rober050@bama.ua.edu

**PROFESSIONAL SUMMARY:**

Experienced in process engineering, quality assurance, environmental engineering and research and development. Successfully designed, simulated, performed cost analysis, and done equipment sizing for an acrylic acid plant. Works well with others in a team, goal orientated, and motivated.

**TECHNICAL SUMMARY:**

Experienced with many different computer applications. Fluently operate Windows 95/98/XP and navigate the Internet. Highly proficient in Microsoft Word, Excel, PowerPoint, and Lotus. Trained to operate mathematical software such as Polymath and MatLab. Skilled in operating AutoCAD, ChemCad, Simulink, Fluent5, Crane Companion, and Gambit.

**EDUCATION:**

**Bachelor of Science: Chemical Engineering**  
**Business Minor, December 2002**  
University of Alabama  
Tuscaloosa, Alabama

**Associates Degree: Chemistry, May 1999**  
Bevill State Community College  
Fayette, Alabama

**EXPERIENCE:**

**Chemical Engineer Intern, May 2003- August 2003**  
**Southern Ionics Incorporated, David Nichols, PhD**

- Arranged and reviewed information to obtain bagging equipment for a new process.
- Organized and prepared tables and graphs for future equipment prices.
- Designed a pump for use in an existing plant.
- Performed material balances for all utilities in a new plant.
- Evaluated preventative maintenance software for the new plant.

**Laboratory Research Assistant, July 2002-December 2002**  
**University of Alabama, Professor Christopher Brazel, PhD**

- Prepared drug loaded hydro gel systems.
- Analyzed samples using ultraviolet/visible spectroscopy and flow-through quartz cells.
- Directed the surface-preferential cross-linking of the drug loaded hydro gel systems.
- Examined the burst effect of the drug loaded hydro gel systems.

**Engineering Co-op, Alternating Semesters, 2000-2001**  
**Mississippi Chemical Corporation, Yazoo City, Mississippi**

- Actively participated with Research and Development on establishing new industrial uses for ammonium nitrate.
- Evaluated and prepared management of change documents on various pieces of equipment located in the plant.
- Reviewed and evaluated piping and instrumentation diagrams for a new facility.
- Prepared the cost budget for the Carlsbad, New Mexico plant.

**PUBLICATIONS:**

Brazel, C.S., A.N. Roberts, and X.Huang, "Surface-Preferential Cross linking in Hydro gels to Minimize the Burst Effect and Design Tunable Lag Times for Drug Delivery," IEEE Trans. Biomed. Eng., October 2002.

**ACTIVITIES:**

American Institute of Chemical Engineers  
Society of Women Engineers

**CERTIFICATIONS:**

Engineer-In-Training

**VOLUNTEER WORK:**

Volunteered in the activities department of a local nursing home.

**REFERENCES:**

Available upon request

Christopher Eric Roberts  
15451 Sandstone Rd.  
Northport, AL 35475  
(205) 330-8316  
792-1012  
Email: [rbrtsche@yahoo.com](mailto:rbrtsche@yahoo.com)

Overall GPA: 2.789

### **Career Objective**

My career objective is either to work as a process engineer in a Chemical Manufacturing company or to work as an engineer in training and to become professionally registered within four years.

### **Education**

University of Alabama, Tuscaloosa  
B.S. Chemical Engineering, December 2001

Bevill State Community College  
Associates degree in Engineering, 1994

Sulligent High School  
Voted most popular, All WAC in football and baseball  
Active drama club member, 1992

### **Work Experience**

#### **Environmental Testing & Engineering Northport, AL (March 2002-Present)**

Design wastewater treatment systems and monitor discharge for manufacturing and mining companies. Clients include aircraft maintenance companies, metal fabrication companies, and coalbed methane companies. Help create SPCC plans. Complete permits that meet EPA and ADEM regulations. Assist in site development projects.

#### **Bellsouth Telecommunications (April 97-July99)**

Performed duties in conjunction with telecommunications service

### **Associations**

Member of the American Institute of Chemical Engineers

### **Computer Skills**

Proficient with MS office, ChemCAD, AutoCAD, MatLAB, MathCAD

# Katherine R. Rounds

5375 East Woodland Drive  
Post Falls, Idaho 83854  
Home: (208) 773-8758  
Cell: (208) 691-7784  
Email: roundk@rpi.edu

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## Objective

An engineering internship to gain experience in the areas of research, design, development, verification and implementation.

## Education

**Rensselaer Polytechnic Institute (RPI)**, Troy, New York.

- B.S. in Chemical Engineering with a minor in Chemistry
- Graduation year - Spring 2005
- Naval ROTC Scholarship - Four years full scholarship

## Experience

Intern - Engineer

**The Boeing Company**, Renton, Washington. Summer 2003.

Structural Bonding group of Boeing Materials Technology in the Commercial Airplane group.

- Gained knowledge related to organic and inorganic chemical processing materials, equipment, and systems for the manufacture of aerospace hardware.
- Gained knowledge of engineering principles for the application of chemical control technologies and systems.
- Gained knowledge of company policies and procedures and local, state, and federal regulations related to environment and safety requirements.
- Applied knowledge of manufacturing processes and materials capabilities to establish research and development strategies.
- Created materials standards and process specifications, facilitated their subsequent deployment, and provided support to the user community.
- Assessed the causes of failed chemical materials or processes and provided remedies.

Production Assistant

**RSVP: Education for Working Professionals**, Troy, New York. Fall 2003.

- Responsible for making classes available to distance students.
- Produced classes onto videocassettes, video stream for the web and CDs.
- Became technically proficient in video/computer based programs.

## Memberships

American Institute of Chemical Engineers

2003-present

Society of Women Engineers

2003-present

Pi Beta Phi Sorority

2002-present

## Accomplishments

Dean's List

2003-present

Social Chair for Pi Beta Phi

Spring 2003

Leading Petty Officer for Navy ROTC

Fall 2002

Women Mentoring Program

2001-present

Religious Education Teacher

2001-2002

Member of RPI Volleyball Club

Fall 2001

## References

Kay Y. Blohowiak

Phantom Works

The Boeing Company

P.O. Box 3707

Renton, WA 98055

(425) 237-4657

kay.y.blohowiak@boeing.com

Pete VanVoast

Boeing Materials Tech.

The Boeing Company

P.O. Box 3707

Renton, WA 98055

(425) 237-3178

peter.j.vanvoast@boeing.com

John M. Montgomery

Tech. Service Rep.

Cytec Eng. Materials Inc.

12011 Bel-Red Road

Bellevue, WA 98005

(425) 274-0485 Ext. 205

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# NICHOLAS C. SEAMON

Current Address:  
274 Lake Landing  
Shelby, Alabama 35143  
(205) 669-6740  
seamo001@bama.ua.edu

Permanent Address:  
206 Greencrest Lane  
Prattville, Alabama 36067  
(334) 365-6155

- OBJECTIVE** To obtain a job in the manufacturing industry using my knowledge of chemical engineering.
- EDUCATION** **Bachelor of Science: Chemical Engineering**  
The University of Alabama, Tuscaloosa, Alabama  
Graduated: August 2003  
Cumulative GPA 3.75/4.0 ChE GPA 3.94/4.0  
*Summer Lab 2002*  
*Passed Foundations of Engineering Exam April 2003*
- EXPERIENCE** **Student Minister**, June 2003-present  
Bay Springs Baptist Church, Shelby, Alabama  
Responsible for leading student group of 15+ in Bible Study, trips, and any other activities involving the student ministry.
- Paint Sales Associate**, March 2003 – August 2003  
The Home Depot, Tuscaloosa, Alabama  
Facilitated the customers in selecting the correct painting materials for their home improvement needs.
- Customer Service Representative**, Summer 2000  
Alabama Power Company, Montgomery, Alabama  
Answered customers' questions concerning electric service, including bill payments, outages, downed lines, etc.
- COMPUTER SKILLS** Windows, ChemCAD, Polymath, Matlab, Maple, Unix
- HONORS/ ACTIVITIES** Tau Beta Pi, Outstanding Junior Achievement Award & Vice President  
J. G. G. Frost Scholar  
Mortar Board  
Omega Chi Epsilon  
Dean's List
- REFERENCES** Available upon request

## **Heather J. Simko**

■ 3301 W. Streetsboro Rd. ■ Richfield OH 44286 ■  
■ Cell Phone: 330-338-3304 ■ Home Phone: 330-659-3297 ■ E-Mail: [Snoopy1979@aol.com](mailto:Snoopy1979@aol.com) ■

**Objective:** Seeking a position as a Chemical Engineer with emphasis in research and development, product development or project management.

### **Education**

The University of Akron  
Akron, Ohio 44304

Bachelor of Science in Chemical Engineering  
Graduation Date: May 2002

### ***Certificates and Certifications***

Certificate of Certification in Polymers  
Registered Ohio State Engineer  
Passed the Fundamentals of Engineering  
Exam

**Research:** Nano-Fiber technology with  
inorganic polymers and multiple nozzles

### **Work History**

6/1- Present *New Accounts Representative / Advisor MBNA America, Akron, Ohio*

- Responsible for gaining new customers and retaining old ones by answering questions they may have about the product and services. Explaining the services that can most benefit the customer based on their lifestyle and needs.
- Informing new applicants in the details of the job. Go through an informal interview with new applicants to help decide if they can move on in the interviewing process. Inform human resources how the new applicant will fit in with the work and team environment.
- Training the new employees during their education process. Being involved with the new employee for five weeks pointing out their strong and weak points, give suggestions on how to improve and chart their progress. Help them reach a their goals consistently, and be competitive against the rest of the floor.

8/00 - 9/01 *Chemical Engineering Co-op, Erico Inc, Solon, Ohio.*

- Managed secondary projects from concept to completion. Included development of Fluidity Matrix analysis for \$40 million dollar exothermic product lines. Developed testing procedures, parameters and correlation's to establish chemistry and temperature of molten metal products.
- Did primary research on conversion of zinc phosphate plating facility to electro-tinning process.
- Assisted in parameter development for state of the art E-Coat process.
- Assisted in waste stream profiling for E-Coat process, zinc phosphate plating line, and plant effluents.
- Assisted Senior Development Engineers with material selection and vendor procurement for Corporate sponsored Primary Projects.
- Prepared documentation, technical reports and oral presentations on elements of projects to Engineering group, and Corporate Management teams.

6/00 - 8/00 *Student Assistant, The University of Akron, Akron, Ohio*

- Worked in the Chemical Engineering department for a professor doing research on filter media with the focus being nano-fiber filtration.
- Responsible for all equipment and training related to finding the charge around / on the fibers, termed zeta-potential, for the research group.
- Responsible for developing the zeta-potential tests used on all fiber material samples. Then summarizing the results, determining possible data trends and determine base correlations to be used in graduate student research projects.
- Perform literature searches on zeta-potential and coalescence of liquid droplets on fiber materials to be used by the research group.

1/00 – 6/00     *Chemical Engineering Co-op, Ohio Brass, Wadsworth, Ohio*

- Responsible for daily electrical test on early production samples and determine base characteristics of the process batch. As well as entering batch data into production spreadsheets.
- Following new formulations from raw materials to finished product stages. Do required test at each production stage to determine if the batch is meeting current production standards, then doing durability and aging tests.
- Fill in for members of the quality department by running daily tests to keep up with production samples.
- Fill in for the kiln manager. Responsibilities include keeping the kiln temperature within specifications and making any needed adjustments for the batch sizes running thru the kiln. Pulling batch samples to be tested. Checking and determine grind heights on the batch pieces from early sample data.

10/97 – 12/99     *New Accounts Representative / Mentor, MBNA America, Akron, Ohio*

- Responsible for gaining new customers and retaining old ones by answering questions they may have about the product and services. Explaining the services that can most benefit the customer based on their lifestyle and needs.
- Informing new applicants in the details of the job. Detailing what is expected by the company of it employees and answering any questions the applicant may have concerning the job and company.
- Training the new employees during their education process. Being involved with the new employee for two weeks pointing out their strong and weak points, give suggestions on how to improve and chart their progress. Help them reach goals consistently, and be competitive against the rest of the floor.

#### **Additional Information**

Computer Skills: Microsoft Office including Excel and Word. AutoCAD, ChemCAD  
Experienced with an ICP, and a gas chromatography  
Experienced with the workings of a distillation column  
Experienced with thermite reactions and flammable solids  
Familiar with heavy metal EPA regulations

#### **Interests and Activities**

Member of the Society of Women in Engineering (Sept. 1997- current)  
On the planning committee the SWE 2001 Regional Conference (Sept. 2001 – Oct. 2001)  
Member of National Association Female Executives (June 2000 – current)  
Member of the Ohio Society of Professional Engineers (June 2002 – current)  
**Other Interests:** Dancing, Arts/Crafts, Hiking, Fencing.  
Live action role-play a form of acting.

## **Stephanie Lin Smith**

smiths7@rpi.edu

340 Walnut Glen Road  
Lincoln University, PA 19352  
(610) 255-0528

E-Complex – Waite, 031  
1999 Burdett Avenue  
Troy, NY 12180-3711  
(518) 276-7975  
(Present-May 2004)

- Objective:** Summer Internship to improve my skills in the field of engineering, and lead to a professional career in chemical engineering.
- Education:**
- Rensselaer Polytechnic Institute, Troy, NY**  
Bachelor of Science: Chemical Engineering, May 2006
    - o Emily Roebling Scholarship
    - o Rensselaer Alumni Scholarship
  - Ursuline Academy, Wilmington, DE** 1998-2002
    - o Salesianum Drafting Competition
    - o Science Fair - Delaware Technical Community College  
Awarded Second Place
- Relevant Experience:**
- Exploring Engineering Day at Dupont 2002  
CAD (Computer Analysis and Design)
    - o CAD final project 2002: build and assemble a mechanical pencil sharpener using Solid Works
  - Engineering Processes Chemistry of Materials
    - o Processes final project: Build a model cannon
- Activities:**
- Society of Women Engineers** 2003-Present  
Volunteer Position:
    - o Classroom Assistant for Students with Disabilities 1998-2000
  - Athletics & Clubs:** 1998-2002
    - o Varsity Field Hockey, Varsity Track & Field (Captain)
    - o S.A.D.D (Students Against Drunk Driving)
- Work Experience:**
- Hartefeld National, Landenberg, PA** 2002-2003  
Line Chef, Expedite, and Hostess
    - o Received "Employee of the Month" Award
  - West Grove Diner, West Grove, PA** 1999-2002  
Server
- Interests:** Building and Design, Running, Field Hockey

**Rachel A. Sollie**  
Solli003@bama.ua.edu  
Phone: (256) 345-8163

**Current Address:**  
2604 6<sup>th</sup> Ct.  
Tuscaloosa, AL 35401

**Permanent Address:**  
1604 Riverbend Pl. SE  
Decatur, AL 35601

**Education:** The University of Alabama, Tuscaloosa, Alabama  
Bachelor of Science: Chemical Engineering  
Expected Graduation: May 2008  
  
Decatur High School, Decatur, Alabama  
Advanced Academic Diploma, with Honor  
G.P.A.: 4.3/4.0

**Activities/Community**

**Service:** University of Alabama Honors Program  
  
President of National Honor Society- 2 years  
Newspaper Editor- 2 years  
Treasurer of SADD club  
Chemistry Club Vice President  
Varsity Soccer Team Captain  
Soccer Camp Volunteer  
Holiday Hope Chest Chairman  
Academic Tutor  
FBLA member  
Member of Sub-Deb, a community service club  
Decatur High School Office Assistant  
Spanish Club

**Honors/  
Achievements:**

University of Alabama Presidential Scholarship recipient  
Department of Engineering Scholarships  
  
Academic Awards Winner- 4 years  
National Honor Society  
Who's Who among American High School Students  
Top 5 in class  
Several Area and State-level soccer awards  
Chosen to attend the National Youth Leadership Forum on Medicine- San Francisco, CA

**Work  
Experience:**

Lifeguard- Burningtree Country Club- Summer 2003  
Lifeguard- Pointe Mallard Clubhouse- Summer 2003

**Computer Skills:** Microsoft Word/Works  
Microsoft Excel  
Microsoft PowerPoint

## **Annie Rebecca Spears**

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**Permanent Address:**

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**Local Address:**

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Tuscaloosa, AL 35401  
Phone (205) 657-0835  
Email [spear005@bama.ua.edu](mailto:spear005@bama.ua.edu)

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- Objective** To obtain an internship in the chemical engineering industry.
- Education** **Bachelor of Science: Chemical Engineering**  
The University of Alabama, Tuscaloosa, Alabama  
Expected Graduation: May 2005  
Cumulative GPA 3.2/4.0 CHE GPA 3.2/4.0
- High School Diploma: Advanced Diploma**  
Geneva High School, Geneva, Alabama  
Graduated: June 2000  
Cumulative GPA: 4.63/4.0(weighted) 3.9/4.0(unweighted)  
ACT: 26
- Experience** Waitress, Summer 2001  
Hen Feather's Café and Catering, Geneva, Alabama  
Waited on customers. Assisted with preparation of food. Accounted for money.  
Assisted with opening and closing of store.
- Computers** Matlab, MS Office, Windows, Maple
- College Activities** AICHE (American Institute of Chemical Engineers) ~ Freshman Representative  
Alpha Gamma Delta Sorority ~ Pledge Class Treasurer, Sisterhood Committee  
Public Relations Chairman  
Bama Belle  
Dean's List  
Gamma Beta Phi Society  
SWE (Society of Women Engineers) ~ Outstanding Member of the Month in  
September 2000, Publicity Committee, Fundraising Chairperson  
SAA (Student Alumni Association)  
SGA (Student Government Association) Homecoming Committee ~ Donations  
TIDE Freshman Program (Teamwork, Integration, and Design In Engineering)  
Alumni Leadership Scholarship recipient  
A.P. & Ray Maness Endowed Engineering Scholarship recipient  
Capstone Summer Honors Program Scholarship recipient  
Clarence Scott Endowed Chemical Engineering Scholarship recipient
- High School Activities** **University of Alabama's** Capstone Summer Honors Program (CSHP)  
**University of Alabama's** Student Introduction To Engineering (SITE)  
**University of Alabama's** Engineering Leadership Day  
Geneva County's Junior Miss  
Girls State Representative ~ Assistant Secretary of State  
Wendy's High School Heisman State Finalist  
Coca-Cola Scholarship Semi-finalists  
President's Student Service Award  
Delta Kappa Gamma Outstanding High School Senior  
Geneva High School Who's Who ~ Most Intellectual  
Student Council Association Representative  
National Beta Club ~ President, Member  
Drug Abuse Resistance Education (DARE) Role Model

# CHRISTY SPEAS

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## INFORMATION

Email: c\_speas@hotmail.com

### School Address

2501 Veteran's Memorial Pkwy.  
Apartment #1014  
Tuscaloosa, AL 35404  
(205) 556-3565

### Home Address

108 Worley Way  
Perry, FL 32347  
(850) 584-5435

## EXPERIENCE

July 2000 – December 2002 ChE Dept, University of Alabama Tuscaloosa, AL  
**Undergraduate Research Assistant**

- Created "virtual lab" modules for the Process Dynamics and Controls Course using Matlab/Simulink and Windows NT

January 2002 – August 2002 Kimberly-Clark Corporation Roswell, GA  
**Co-operative Education Student – Materials Developer – Nonwovens Technology**

- Developed and characterized thermoplastic elastomeric films and assisted with process and material developments of nonwoven diaper components

May 2001 – August 2001 Kimberly-Clark Corporation Neenah, WI  
**Co-operative Education Student – Product Developer – Infant Care Product Development**

- Conducted research involving product design and component material changes, evaluated through physical measurements and studies with consumers for improvements to HUGGIES diapers

August 2000 – December 2000 Kimberly-Clark Corporation Neenah, WI  
**Co-operative Education Student – Product Developer – Family Care Product Development**

- Conducted research to identify test methods and conducted testing and analysis to characterize novel tissue structure

## EDUCATION

1999-Present University of Alabama Tuscaloosa, AL

- Pursuing Bachelor of Science in Chemical Engineering
- Pursuing Minor in Computer Research
- Expected Date of Graduation – December 2003

**Major GPA:** 3.46/4.00 **OA GPA:** 3.289/4.00

## HONORS

Buddy Carter Crimson Scholarship  
Computer Based Honors Program Scholarship  
Robert C. Byrd Scholarship  
Clarence W. Scott Scholarship  
JGG Frost/ Vulcan Materials Co. Chemical Engineering Scholarship  
America's Junior Miss Scholarship

## ACTIVITIES

American Institute of Chemical Engineers – local and national  
-Director of Social Affairs – local  
-E-Day Committee Chairperson  
Computer Based Honors Program  
Kappa Alpha Theta Fraternity  
-Panhellenic Judicial Board  
-Delta Omicron Recruitment Alumnae Chairwoman  
-Delta Omicron Development Committee  
Alpha Lambda Delta – freshman honor society  
Phi Eta Sigma – freshman honor society  
National Society of Collegiate Scholars  
Welcome Ministry Team Leader  
FIRST Lego League Mentor (For Inspiration and Recognition of Science and Technology)  
Miracle Riders Volunteer

## SKILLS

Matlab, C, VBA, Fortran, HTML, Internet Explorer, Unix, Windows 95-XP, Microsoft Excel, Microsoft PowerPoint, Microsoft Word, ChemCAD, FLUENT, Polymath

## **Jennifer Kim Stierwalt**

Box 860517

Tuscaloosa, AL 35486-0005

**Phone:** (205)792-8338

**Email:** bamafemale@hotmail.com

### **Education:**

**The University of Alabama**

**Bachelor of Science Chemical Engineering**

**Cumulative GPA:** 3.47/4.00

**Projected Graduation Date:** August 2004

### **Activities and Honors:**

-University of Alabama Army ROTC cadet

-President's Cabinet Scholarship recipient

-Clarence Scott Chemical Engineering Scholarship recipient

-US Army Physical Fitness Award:

Scored maximum points on the Army Physical Fitness Test

-Charlie Company Junior Leader of the Week during Army Advanced Individual Training (AIT)

-Member of AICHE (Fall 1999-Present)

-University of Alabama Baseball Team Hostess (Spring 2000)

### **Work Experience:**

Fall 2001-Present

75<sup>th</sup> Combat Support Hospital

Tuscaloosa, AL

#### **US Army Reservist 91W Combat Medic**

Participate in weekend drills at the hospital unit. Trained through US Army Basic Training and AIT for 27 weeks in combat medic skills, military conduct, war-time preparations, and other military applications.

Received certification through the National Registry of Emergency Medical Technicians.

Spring 2002/Summer 2003

Twice as Nice

Tuscaloosa, AL

#### **Retail Clerk**

Worked retail at this clothing/furniture/antique consignment store— operated the cash register, priced goods, put out apparel and furniture, did bookkeeping/filing, and performed janitorial duties.

Fall 2001/Spring 2001/Summer 2000

Shaw Industries

Dalton, GA

#### **Co-Op Student**

At ShawChem, completed projects dealing with yarn/carpet plant chemicals. Main project was the formulation of a more economical replacement for the currently used acid buffer (used in the dyeing process). At Central Lab, performed various tests on submitted claim samples; among these: stain, strength, pH, chlorine, and Infrared analyses. Also revamped the chemical inventory of the lab and initiated the yarn database. At WM Extrusion, conducted strength and color testing on polypropylene and nylon yarn. Major project was aiding a Black Belt process project which entailed analyzing the color change method for the solution-dyed extrusion process.

Spring/Fall 2000

Logan's Roadhouse

Tuscaloosa, AL

#### **Restaurant Hostess**

Summer 1999

Omnova Solutions

Columbus, MS

#### **Summer Intern**

Performed stain tests on various vinyl wall covering samples and secretarial duties.



**References:**

Joyce Lamb  
Shaw Industries Central Lab Supervisor  
Shaw Industries, Inc.  
Plant 3 Central Laboratory  
Dalton, GA 30722  
(706) 275-2222/(706) 275-2218

Richard Andrusko  
Shaw Industries ShawChem Supervisor  
Shaw Industries, Inc.  
Plant 4 ShawChem  
Dalton, GA 30722  
(706) 275-4007

Steve Kwee  
Shaw Industries ShawChem Lab Supervisor  
Plant 4 ShawChem  
Dalton, GA 30722  
(706) 275-4162

Dr. Stephen Ritchie  
University of Alabama  
CHE Professor  
P. O. Box 870203  
Tuscaloosa, AL 35487  
(205) 348-2712

## **MATTHEW B. TALIAFERRO**

Current Address:  
516 15th Avenue #2  
Tuscaloosa, AL 35401  
(205) 342-3355  
ferro16@aol.com

Permanent Address:  
30 Heritage Way  
Oxford, AL 36203  
(256) 831-7190

### **OBJECTIVE**

To obtain an entry-level position in the petroleum refining industry with an emphasis in project engineering and a future in engineering management.

### **EDUCATION**

#### **Bachelor of Science: Chemical Engineering**

Minor: Business Management  
Environmental Engineering Certificate  
The University of Alabama, Tuscaloosa, Alabama  
Expected Graduation: May 2004  
GPA: 3.58 /4.0

### **WORK EXPERIENCE**

May 2003 - June 2003 - Chemical Engineering Unit Operations Laboratory - Tuscaloosa, Alabama - This course is designed to simulate a work environment. Five professors assigned one project to be completed during this course. I worked in a team environment to conduct research, performing and completing experiments, developed reports on outcome of the experiment, and conducted presentations on the results to each professor.

May 2001 - Present - Hidden Meadows Golf Course - Northport, Alabama - Customer service, maintain golf carts and equipment, operates cash register in golf shop.

May 2000 - August 2000 - FoodMax - Oxford Alabama - Cashier - Summer Job

May 1999 - August 1999 - Kloke Transfer- Anniston, Alabama - Packer - Packed up electronic equipment for shipment from Ft. McClellan, AL to Ft. Jackson, SC. Transported this equipment from one government installation to another by U-Haul truck - Summer Job

### **COMPUTER SKILLS**

MS Office: Word, Excel, Access, Internet Explorer, Outlook; FORTRAN 90, Matlab, Polymath 5.1, ChemCad 5, HeatExchanger, AutoCAD, Dos, Numerical Analysis Windows 95/98/NT/2000/XP

### **HONORS**

Gamma Beta Phi National Honor Society  
Golden Key International Honor Society  
Omega Chi Epsilon Chemical Engineering Honor Society  
Tau Beta Pi National Engineering Honor Society  
Dean's List

### **SCHOLARSHIPS**

President's Cabinet Scholarship  
Chevron Chemical Engineering Scholarship  
J. Frost - Vulcan Materials Company Scholarship  
Clearance Scott Chemical Engineering Scholarship  
Blaise L. Rampone Quasi Engineering Scholarship  
College of Engineering Scholarship

**REFERENCES** available upon request

**Michael S. Van Wagener**

2110 Trinity Oaks Drive, Jonesboro, AR 72401

mike\_bama@hotmail.com

Home: (870) 935-4904

**OBJECTIVE** To obtain a chemical engineering position that will allow me to enhance my technical and communication skills in a process and project engineering role.

**EDUCATION** **The University of Alabama, Tuscaloosa, Alabama, December 2001**  
Major: Chemical Engineering  
Overall Grade Point Average: 3.42  
Continuing Education: Engineer-In-Training, Environmental Engineering Certificate

**EMPLOYMENT** **SAV ON Office Supplies, Jonesboro, Arkansas** 8/2002 - Present  
**SALES ASSOCIATE**

Responsibilities include greeting customers and answering questions regarding inventory; placing and filling orders for delivery; assisting the manager with inventory by unloading trucks, stocking shelves, and working the cash register.

**Haworth Inc., Jonesboro, Arkansas** 5/2000 - 8/2000  
**PRODUCTION ENGINEER INTERN**

Worked with senior engineers in the layout and installation of new production lines and equipment; maintained a spare parts list while in contact with several part manufacturers to reduce company expenses.

**Haworth Inc., Jonesboro, Arkansas** 5/1999 - 8/1999  
**PRODUCTION LINE WORKER**

Assisted maintenance and production crew with assembly line operation; cleaned assembly lines during downtime; worked on the assembly line as a shift worker.

**Physics TIDE Tutor Program, Tuscaloosa, Alabama** 9/1998 - 5/2000  
**STUDENT WORKER**

Attended a calculus based physics class during class hours in order to observe material being taught; monitored a computer lab during tutor hours; answered questions students had about physics and other Foundation Coalition or TIDE courses.

**SKILLS** **COMPUTER:** Proficient with Windows 95/98, Microsoft Office, AutoCAD, ChemCAD Simulation Software, MathCAD, DOS, HTML, MatLAB, Photoshop; Developed websites for personal use and enjoyment

**COMMUNICATION/TEAMWORK:** Worked closely with other engineers and interns to develop layouts for production lines; Worked in a team atmosphere in the Foundation Coalition curriculum at UA; tutored college level Calculus and Physics students

**LEADERSHIP:** Summer Camp Counselor as a Boy Scout; Dean's list (Fall 1997, Spring 1998, Spring 2000, Spring 2001, Fall 2001); Phi Eta Sigma Honor Society Member

## PAUL A. WELLER

Current Address:  
5100 Old Birmingham Hwy #2014  
Tuscaloosa, Alabama 35404  
(205) 554-7593  
[pwnbama@aol.com](mailto:pwnbama@aol.com)

**Objective** To obtain an entry-level position in process or production engineering.

**Education** **Bachelor of Science: Chemical Engineering**  
**Minor: Business**  
The University of Alabama, Tuscaloosa, Alabama  
Expected Graduation: May 2003  
Cumulative GPA 3.0/4.0 CHE GPA 3.43/4.0

**Course Projects** **Summer Lab**, Conducted five experiments such as: heat exchange, distillation, evaporation, reaction, and fluid flow. Lead the heat exchange and fluid flow experiments. Presented results and experimental procedure for distillation experiment using MS Power Point.

**Experience** **Engineering Coop**, Alternating Semesters, 2000-2001  
Ciba Specialty Chemicals, McIntosh, Alabama  
Updated interlock checklist for processes in Area 1. Updated Process Flow Diagrams with Freelance and MS Power Point. Performed batch reactions in Area 1 Plant Support Lab using a new catalyst. Utilized Visual Basic programming to develop a reporting system for the Safety Crew to keep track of and analyze problem areas within the plant. Updated Piping and Instrument Diagrams for Area 20. Completed batch distillation trials to simulate and improve the octane distillation process in Area 20. Performed pump calculations to replace a set of reactor heating jacket pumps.

|                    |                           |                                |
|--------------------|---------------------------|--------------------------------|
| <b>CHE Courses</b> | CHE Calculations          | Unit Operations Lab            |
|                    | CHE Thermodynamics        | Chemical Reactor Design        |
|                    | Fluid Flow Operations     | Health Safety Chemical Process |
|                    | Separations Process       | Chemical Process Design II     |
|                    | Heat Transfer Operations  | Process Dynamics and Controls  |
|                    | Basic CHE Lab             | Polymer Materials Engineering  |
|                    | Chemical Process Design I | Transport Phenomena            |

**Computers** MS Office, MS Excel, MS Access, MS Power Point, ChemCAD, Powerstation, Freelance, Visual Basic, Windows

**Activities** American Institute of Chemical Engineers, member  
Played Intramural Sports, flag football and tennis

**Athena S Westbrooks**  
1632 44<sup>th</sup> Street Ensley  
Birmingham, Alabama 35208  
(205)347-8658  
westb011@bama.ua.edu

### **Education:**

**Bachelor of Science:** Chemical Engineering  
The University of Alabama, Tuscaloosa, Alabama  
Cumulative GPA: 2.0 approx.  
Expected Graduation: May 2006

**Bachelor of Science:** Biomedical Engineering  
The University of South Alabama, Mobile, Alabama  
No Degree Obtained

**High school:** Alabama School of Fine Arts  
Diploma: Math/Science  
AP Calculus, AP Physics, AP Biology, AP Chemistry

### **Experience:**

**Sales Associate**, June 200-present  
United Textiles, Bessemer, Alabama  
Deal with customers, Account for money (cashier), Clean up, Put up displays, and  
Restock merchandise

**Summer Camp Counselor**, May 2003-August 2003  
Birmingham Western Area YMCA, Birmingham, Alabama  
Dealt with children ages 7-8, Dealt with parents, Supervised children on field trips,  
Transported children to various activities

**Research Intern**, June 2000- May 2001  
The University of Alabama at Birmingham, Department of Nephrology, Birmingham,  
Alabama  
Researched hypertension in Sprague Dawley, salt-resistant and salt-sensitive rats

### **Computer Skills**

C/C++, MS Office, Word, Windows, Excel, WordPerfect

### **Certifications**

CPR Certified (expires 05/2004), First Aid Certified (Expires 05/2004)

### **Activities**

National Society of Black Engineers (NSBE), member  
Big Brother/ Big Sister, participant  
Student Government, representative  
Girls in Science, mentor  
Cultural Awareness and Racial Equality (CARE), secretary

## **ISHANEKA WILLIAMS**

3342 Pittari Place  
New Orleans, Louisiana 70131  
504-368-0218 (New Orleans)  
225-334-4932 (Baton Rouge)  
iwilli2@lsu.edu

### **OBJECTIVE**

To obtain a Bachelor's Degree in Chemical Engineering from Louisiana State University, and in the process gain work experience by interning or receiving a cooperative educational opportunity.

### **EDUCATION**

**Louisiana State University (LSU)** May 2005  
Baton Rouge, Louisiana Major: Chemical Engineering  
**New Orleans Center for Science and Mathematics** May 2000  
Finished number five in Top Ten GPA: 3.75  
**Edna Karr Magnet High School** May 2000  
New Orleans, Louisiana GPA: 3.8

### **COMPUTER SKILLS**

Microsoft Office 98 Suite, experience with ASPEN, LIMS, PIMS

### **EXPERIENCE**

- 6/00-2/02 Student Assistant LAMP Coordinator, Minority Engineering Programs-LSU**  
Organize, collect, update, process, relate, and inform student apprentices who participate in the Louisiana Alliance for Minority Participation (LAMP) program of information related to their status, and upcoming events. Keep database of each apprentice's information.
- 6/01-8/01 Intern, B.A.S.F.**  
Participated in Plant shutdown, designed a macro that sorted, and processed imported information from lab databases
- 4/00-5/00 Food Expeditor, Applebee's Neighborhood Bar & Grill**  
Organized, performed, and managed the time constraints of fast paced food services. Ensured that the food items were presentable and met company standards of high quality and performance.
- 6/99-8/99 Assistant Curator Intern, Tulane's Museum of Natural History**  
Consolidated the fish specimens into sizable jars. Cataloged and processed the status of the collections into the computer systems. Participated in five-year specimen tracking seining research project for the recent specimen of study.

### **CLUBS & ACTIVITIES**

Society of Women Engineer(Executive Director of Treasuries); MLK Committee member; National Society of Black Engineers; MEP Envoy; NAACP; NOBCChe; Community Service Org. 'Feed My People'; National Honor Society; Beta Club; Life Member of Community Service Org. Youthanasia;

### **VOLUNTEER SERVICES & PROJECTS**

NSBE and MEP Tutor; Feed the Homeless at Bridge House Project; Renovating Inner City Playgrounds; 'Quilt of Tranquility' Project; Hostess of Peer Leadership Banquet; Beautify School Grounds Project; Dissection Labs at Inner City Elementary Schools

### **AWARDS RECEIVED**

Awards: ITT Scholarship recipient; A.E.T. Scholarship; Summer Scholar 2000- LSU; Kappa Alpha Psi 4.0 scholarship; TOPS; MEP Scholar; bp Scholarship; Who's Who Among American High School Students 97-00  
Programs: Xavier University BioStar and ChemStar (full scholarships); Women's League Leadership Conference (team leader); AMPHS Symposium 97; participated in research at LUMCON Research.

# **BLEVE B. WILLOUGHBY**

2408 Stardust Drive  
Tuscaloosa, AL 35405  
(205) 454-0709  
BWillghby@hotmail.com

- OBJECTIVE** To obtain an entry level process engineering position with an opportunity for advancement into engineering management.
- EDUCATION** **Bachelor of Science: Chemical Engineering**  
The University of Alabama, Tuscaloosa, Alabama  
Expected Graduation: August 2004  
Cumulative GPA: 3.5/4.0  
Major GPA: 3.7/4.0
- EXPERIENCE** **Lab Technician**, January 2003-Present  
TTL, Inc., Tuscaloosa, Alabama  
Establish survival and reproductive rates of organisms when placed in environmental wastewater. Determine the presence/absence of coliform bacteria in raw and drinking water samples.
- Unit Operations Laboratory**, Summer 2003  
The University of Alabama, Tuscaloosa, Alabama  
Worked in assigned teams to perform experiments using a lab-scale distillation column, heat exchanger, and evaporator. Prepared proposals, reports, and presentations for each experiment.
- Engineering Co-Op**, Fall 2001, Summer 2002  
MeadWestvaco Containerboard, Technical Services Department, Stevenson, Alabama.  
Collected weekly pulp samples and tested for oversize particles using shive analyzer. Used Microsoft Excel to update and maintain monthly downtime databases for each paper machine. Participated on company wide teams designed to troubleshoot and solve operational problems. Led feasibility study of new fiber analyzer. Trained new Co-Ops to continue above responsibilities.
- Farm Worker**, Summers 1998-2000  
Paragon Farms, Charleston, Missouri.  
Washed and sorted potatoes before they were loaded onto trucks.
- COMPUTER SKILLS** MS Excel, MS Word, MS Powerpoint, Windows 98-XP, Internet Explorer, ChemCAD, Polymath, AutoCAD, FORTRAN
- HONORS AND ACTIVITIES** American Institute of Chemical Engineers  
Clarence Scott Chemical Engineering Scholarship  
Capstone Scholars Day Scholarship  
President's List  
JGG-Frost – Vulcan Material Company Scholar
- REFERENCES** Available upon request